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2000 EMERGENCY RESPONSE GUIDEBOOK

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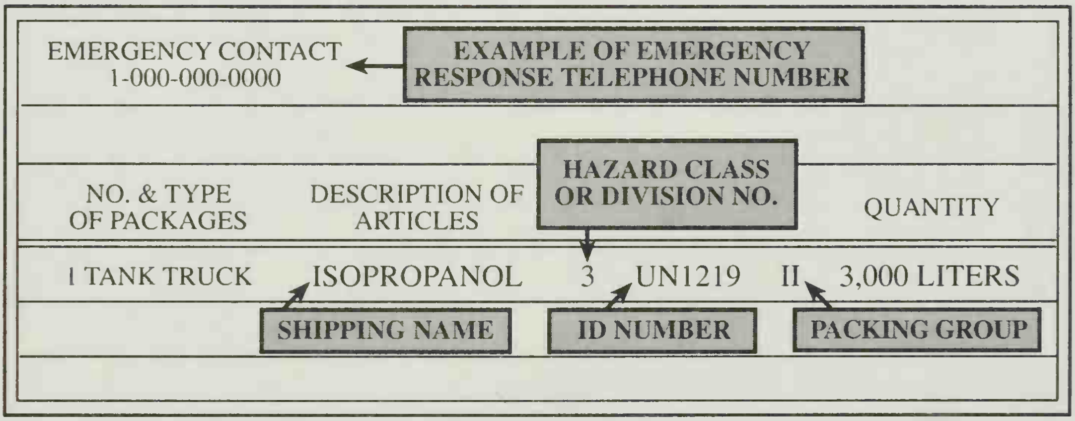
A GUIDEBOOK FOR FIRST RESPONDERS DURING THE INITIAL PHASE OF A DANGEROUS GOODS/HAZARDOUS MATERIALS INCIDENT

SHIPPING DOCUMENTS (PAPERS)*

The shipping document provides vital information when responding to a hazardous materials/dangerous goods** incident. The shipping document contains information needed to identify the materials involved. Use this information to initiate protective actions for your own safety and the safety of the public. The shipping document contains the proper shipping name (see blue-bordered pages), the hazard class or division of the material(s), ID number (see yellow-bordered pages), and, where appropriate, the Packing Group. In addition, there must be information available that describes the hazards of the material which can be used in the mitigation of an incident. The information must be entered on or be with the shipping document. This requirement may be satisfied by attaching a guide from the ERG2000 to the shipping document, or by having the entire guidebook available for ready reference. Shipping documents are required for most dangerous goods in transportation. Shipping documents are kept in

- the cab of the motor vehicle,
- the possession of the train crew member,
- a holder on the bridge of a vessel, or
- an aircraft pilot's possession.



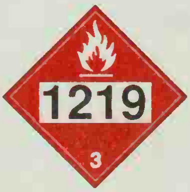
EMERGENCY CONTACT
1-000-000-0000

NO. & TYPE OF PACKAGES	DESCRIPTION OF ARTICLES				QUANTITY
1 TANK TRUCK	ISOPROPANOL	3	UN1219	II	3,000 LITERS

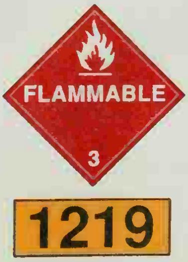
EXAMPLE OF EMERGENCY RESPONSE TELEPHONE NUMBER
HAZARD CLASS OR DIVISION NO.
SHIPPING NAME
ID NUMBER
PACKING GROUP

EXAMPLE OF PLACARD AND PANEL WITH ID NUMBER

The 4-digit ID Number may be shown on the diamond-shaped placard or on an adjacent orange panel displayed on the ends and sides of a cargo tank, vehicle or rail car.



A Numbered Placard or A Placard and an Orange Panel



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* For the purposes of this book, the terms shipping document/shipping paper are synonymous.

** For the purposes of this book, the terms hazardous materials/dangerous goods are synonymous.

RESIST RUSHING IN !
APPROACH INCIDENT FROM UPWIND
STAY CLEAR OF ALL SPILLS, VAPORS, FUMES AND SMOKE

HOW TO USE THIS GUIDEBOOK DURING AN INCIDENT INVOLVING DANGEROUS GOODS

ONE **IDENTIFY THE MATERIAL** BY FINDING ANY **ONE** OF THE FOLLOWING:

THE 4-DIGIT ID NUMBER ON A PLACARD OR ORANGE PANEL

THE 4-DIGIT ID NUMBER (after UN/NA) ON A SHIPPING DOCUMENT OR PACKAGE

THE NAME OF THE MATERIAL ON A SHIPPING DOCUMENT, PLACARD OR PACKAGE

IF AN **ID NUMBER** OR THE **NAME OF THE MATERIAL** CANNOT BE FOUND, SKIP TO THE NOTES BELOW.

TWO **LOOK UP THE MATERIAL'S 3-DIGIT GUIDE NUMBER** IN EITHER:

THE ID NUMBER INDEX..(the yellow-bordered pages of the guidebook)

THE NAME OF MATERIAL INDEX..(the blue-bordered pages of the guidebook)

If the guide number is supplemented with the letter "**P**", it indicates that the material may undergo violent polymerization if subjected to heat or contamination.

If the index entry is highlighted (in either yellow or blue), it is a TIH (Toxic Inhalation Hazard) material or a Dangerous Water Reactive Material (produces toxic gas upon contact with water). **LOOK FOR THE ID NUMBER AND NAME OF THE MATERIAL** IN THE TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES (the green-bordered pages). Then, if necessary, **BEGIN PROTECTIVE ACTIONS IMMEDIATELY** (see Protective Actions on page 314). If protective action is not required, use the information jointly with the 3-digit guide.

USE GUIDE 112 FOR ALL EXPLOSIVES EXCEPT FOR EXPLOSIVES 1.4 (EXPLOSIVES C) WHERE GUIDE 114 IS TO BE CONSULTED.

THREE **TURN TO THE NUMBERED GUIDE** (the orange-bordered pages) **AND READ CAREFULLY.**

NOTES **IF A NUMBERED GUIDE CANNOT BE OBTAINED BY FOLLOWING THE ABOVE STEPS**, AND A PLACARD CAN BE SEEN, LOCATE THE PLACARD IN THE TABLE OF PLACARDS (pages 16-17), THEN GO TO THE 3-DIGIT GUIDE SHOWN NEXT TO THE SAMPLE PLACARD.

IF A REFERENCE TO A GUIDE CANNOT BE FOUND AND THIS INCIDENT IS BELIEVED TO INVOLVE DANGEROUS GOODS, TURN TO **GUIDE 111** NOW, AND USE IT UNTIL ADDITIONAL INFORMATION BECOMES AVAILABLE. If the shipping document lists an emergency response telephone number, call that number. If the shipping document is not available, or no emergency response telephone number is listed, IMMEDIATELY CALL the appropriate **emergency response agency listed on the inside back cover of this guidebook.** Provide as much information as possible, such as the name of the carrier (trucking company or railroad) and vehicle number. AS A LAST RESORT, CONSULT THE TABLE OF RAIL CAR AND ROAD TRAILER IDENTIFICATION CHART (pages 18-19). IF THE CONTAINER CAN BE IDENTIFIED, REMEMBER THAT THE INFORMATION ASSOCIATED WITH THESE CONTAINERS IS FOR THE WORST CASE POSSIBLE.

ERG2000 USER'S GUIDE

The 2000 Emergency Response Guidebook (ERG2000) was developed jointly by Transport Canada (TC), the U.S. Department of Transportation (DOT) and the Secretariat of Transport and Communications of Mexico (SCT) for use by fire fighters, police, and other emergency services personnel who may be the first to arrive at the scene of a transportation incident involving dangerous goods. **It is primarily a guide to aid first responders in quickly identifying the specific or generic hazards of the material(s) involved in the incident, and protecting themselves and the general public during the initial response phase of the incident.** For the purposes of this guidebook, the "initial response phase" is that period following arrival at the scene of an incident during which the presence and/or identification of dangerous goods is confirmed, protective actions and area securement are initiated, and assistance of qualified personnel is requested. It is not intended to provide information on the physical or chemical properties of dangerous goods.

This guidebook will assist responders in making initial decisions upon arriving at the scene of a dangerous goods incident. It should not be considered as a substitute for emergency response training, knowledge or sound judgment. ERG2000 does not address all possible circumstances that may be associated with a dangerous goods incident. It is primarily designed for use at a dangerous goods incident occurring on a highway or railroad. Be mindful that there may be limited value in its application at fixed facility locations.

ERG2000 incorporates dangerous goods lists from the most recent United Nations Recommendations as well as from other international and national regulations. Explosives are not listed individually by either proper shipping name or ID Number. They do, however, appear under the general heading "Explosives" on the first page of the ID Number index (yellow-bordered pages) and alphabetically in the Name of Material index (blue-bordered pages). Also, the letter **"P"** following the guide number in the yellow-bordered and blue-bordered pages identifies those materials which present a polymerization hazard under certain conditions; for example, Acrolein, inhibited, Guide **131P**.

First responders at the scene of a dangerous goods incident should seek additional specific information about any material in question as soon as possible. The information received by contacting the appropriate emergency response agency, the emergency response number on the shipping document, or by consulting the information on or accompanying the shipping document, may be more specific and accurate than this guidebook in providing guidance for the materials involved.

BECOME FAMILIAR WITH THIS GUIDEBOOK BEFORE USING IT DURING AN EMERGENCY! In the U.S., according to the requirements of the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA, 29 CFR 1910.120), and regulations issued by the U.S. Environmental Protection Agency (EPA, 40 CFR Part 311), first responders must be trained regarding the use of this guidebook.

GUIDEBOOK CONTENTS

1-Yellow-bordered pages: Index list of dangerous goods in numerical order of ID number. This section quickly identifies the guide to be consulted from the ID Number of the material involved. This list displays the 4-digit ID number of the material followed by its assigned emergency response guide and the material name.

For example:	**ID No.**	**Guide No.**	**Name of Material**
	1090	**127**	Acetone

2-Blue-bordered pages: Index list of dangerous goods in alphabetical order of material name. This section quickly identifies the guide to be consulted from the name of the material involved. This list displays the name of the material followed by its assigned emergency response guide and 4-digit ID number.

For example:	**Name of Material**	**Guide No.**	**ID No.**
	Sulfuric acid	**137**	1830

3-Orange-bordered pages: This section is the most important section of the guidebook because it is where all safety recommendations are provided. It comprises a total of 62 individual guides, presented in a two-page format. Each guide provides safety recommendations and emergency response information to protect yourself and the public. The left hand page provides safety related information whereas the right hand page provides emergency response guidance and activities for fire situations, spill or leak incidents and first aid. Each guide is designed to cover a group of materials which possess similar chemical and toxicological characteristics.

The guide title identifies the general hazards of the dangerous goods covered.

For example: **Guide 124** - Gases-Toxic and/or Corrosive-Oxidizing.

Each guide is divided into three main sections: the first section describes **potential hazards** that the material may display in terms of fire/explosion and health effects upon exposure. The highest potential is listed first. The emergency responder should consult this section first. This allows the responder to make decisions regarding the protection of the emergency response team as well as the surrounding population.

The second section outlines suggested **public safety** measures based on the situation at hand. It provides general information regarding immediate isolation of the incident site, recommended type of protective clothing and respiratory protection. Suggested evacuation distances are listed for small and large spills and for fire situations (fragmentation hazard). It also directs the reader to consult the tables listing Toxic Inhalation Hazard materials (TIH) and water-reactive materials (green-bordered pages) when the material name is highlighted in the yellow-bordered and blue-bordered pages.

The third section covers **emergency response** actions, including first aid. It outlines special precautions for incidents which involve fire, spill or chemical exposure. Several recommendations are listed under each part which will further assist in the decision making process. The information on first aid is general guidance prior to seeking medical care.

4-Green-bordered pages: This section contains a table which lists, by ID number, TIH materials, including certain chemical warfare agents, and water-reactive materials which produce toxic gases upon contact with water. The table provides two different types of recommended safe distances which are "Initial isolation distances" and "Protective action distances." The materials are highlighted for easy identification in both numeric (yellow-bordered pages) and alphabetic (blue-bordered pages) lists of the guidebook. The table provides distances for both small (approximately 200 liters or less) and large spills (more than 200 liters) for all highlighted materials. The list is further subdivided into daytime and nighttime situations. This is necessary due to varying atmospheric conditions which greatly affect the size of the hazardous area. The distances change from daytime to nighttime due to different mixing and dispersion conditions in the air. During the night, the air is generally calmer and this causes the chemical to disperse less and therefore create a toxicity zone which is greater than would usually occur during the day. During the day, the chemical is generally dispersed by a more active atmosphere. The chemical will be present in a larger area; however, the actual area where toxic levels are reached will be smaller (due to increased dispersion). It is the quantity of the chemical that poses problems not its mere presence.

The "Initial Isolation Distance" is a distance within which all persons should be considered for evacuation in all directions from the actual spill/leak source. It is a distance (radius) which defines a circle (Initial Isolation Zone) within which persons may be exposed to dangerous concentrations upwind of the source and may be exposed to life threatening concentrations downwind of the source. For example, in the case of Compressed gas, toxic, n.o.s., ID No. 1955, Inhalation Hazard Zone A, the isolation distance for small spills is 430 meters, therefore, representing an evacuation circle of 860 meters in diameter.

For the same material, the "Protective Action Distance" is 4.2 kilometers for a daytime incident and 8.4 kilometers for a nighttime incident, these distances represent a downwind distance from the spill/leak source within which Protective Actions could be implemented. Protective Actions are those steps taken to preserve the health and safety of emergency responders and the public. People in this area could be evacuated and/or sheltered in-place. For more information, consult the INTRODUCTION TO THE TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES (pages 311-312).

What is a TIH?

It is a liquid or a gas which is known to be so toxic to humans as to pose a hazard to health during transportation, or in the absence of adequate data on human toxicity, is presumed to be toxic to humans because when tested on laboratory animals it has an LC50 value of not more than 5000 ppm.

It is important to note that even though the term zone is used, the hazard zones do not represent any actual area or distance. The assignment of the zones is strictly a function of their Lethal Concentration 50 (LC50); for example, TIH Zone A is more toxic than Zone D. All distances which are listed in the green-bordered pages are calculated by the use of mathematical models for each TIH material.

Assignment of hazard zones:

HAZARD ZONE A: LC50 of less than or equal to 200 ppm,
HAZARD ZONE B: LC50 greater than 200 ppm and less than or equal to 1000 ppm,
HAZARD ZONE C: LC50 greater than 1000 ppm and less than or equal to 3000 ppm,
HAZARD ZONE D: LC50 greater than 3000 ppm and less than or equal to 5000 ppm.

ISOLATION AND EVACUATION DISTANCES

Isolation or evacuation distances are shown in the guides (orange-bordered pages) and in the Table of Initial Isolation and Protective Action Distances (green-bordered pages). This may confuse users not thoroughly familiar with ERG2000.

It is important to note that some guides refer to non-TIH materials only (40 guides) and some refer to both TIH and non-TIH materials (22 guides). A guide refers to both TIH and non-TIH materials only when the following sentence appears under the title EVACUATION-SPILLS: "See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under 'PUBLIC SAFETY.'" If this sentence does not appear in the guide, then this particular guide refers to non-TIH materials only.

If you are dealing with a TIH material (highlighted entries in the index lists), the isolation and evacuation distances are found directly in the green-bordered pages. The guides (orange-bordered pages) also remind the user to refer to the green-bordered pages for evacuation specific information involving highlighted materials.

If you are dealing with a non-TIH material but the guide refers to both TIH and non-TIH materials, an immediate isolation distance is provided under the heading PUBLIC SAFETY. It applies to the non-TIH materials only. In addition, for evacuation purposes, the guide informs the user under the title EVACUATION-SPILLS to increase, for non-highlighted substances, in the downwind direction, if necessary, the immediate isolation distance listed under "Public Safety." For example, Guide 124 - Gases-Toxic and/or Corrosive-Oxidizing, instructs the user to: Isolate the spill or leak area immediately for at least 100 to 200 meters (330 to 660 feet) in all directions. In case of a large spill, the isolation area could be expanded from 100 meters to a distance deemed as safe by the On-scene-commander and emergency responders.

If you are dealing with a non-TIH material and the guide refers only to non-TIH materials, the immediate isolation and evacuation distances are specified as actual distances in the guide (orange-bordered pages) and are not referenced in the green-bordered pages.

SAFETY PRECAUTIONS

APPROACH CAUTIOUSLY FROM UPWIND. Resist the urge to rush in; others cannot be helped until the situation has been fully assessed.

SECURE THE SCENE. Without entering the immediate hazard area, isolate the area and assure the safety of people and the environment, keep people away from the scene and outside the safety perimeter. Allow enough room to move and remove your own equipment.

IDENTIFY THE HAZARDS. Placards, container labels, shipping documents, material safety data sheets, Rail Car and Road Trailer Identification Charts, and/or knowledgeable persons on the scene are valuable information sources. Evaluate all available information and consult the recommended guide to reduce immediate risks. **Additional information, provided by the shipper or obtained from another authoritative source, may change some of the emphasis or details found in the guide.** Remember, the guide provides only the most important and worst case scenario information for the initial response in relation to a family or class of dangerous goods. As more material-specific information becomes available, the response should be tailored to the situation.

ASSESS THE SITUATION. Consider the following:

- Is there a fire, a spill or a leak?
- What are the weather conditions?
- What is the terrain like?
- Who/what is at risk: people, property or the environment?
- What actions should be taken: Is an evacuation necessary? Is diking necessary? What resources (human and equipment) are required and are readily available?
- What can be done immediately?

OBTAIN HELP. Advise your headquarters to notify responsible agencies and call for assistance from qualified personnel.

DECIDE ON SITE ENTRY. Any efforts made to rescue persons, protect property or the environment must be weighed against the possibility that you could become part of the problem. Enter the area only when wearing appropriate protective gear (see PROTECTIVE CLOTHING, page 364).

RESPOND. Respond in an appropriate manner. Establish a command post and lines of communication. Rescue casualties where possible and evacuate if necessary. Maintain control of the site. Continually reassess the situation and modify the response accordingly. The first duty is to consider the safety of people in the immediate area, including your own.

ABOVE ALL — Do not walk into or touch spilled material. Avoid inhalation of fumes, smoke and vapors, even if no dangerous goods are known to be involved. Do not assume that gases or vapors are harmless because of lack of a smell—odorless gases or vapors may be harmful.

WHO TO CALL FOR ASSISTANCE

Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Follow the steps outlined in your organization's standard operating procedures and/or local emergency response plan for obtaining qualified assistance. Generally, the notification sequence and requests for technical information beyond what is available in this guidebook should occur in the following order:

1. ORGANIZATION/AGENCY

Notify your organization/agency. This will set in motion a series of events based upon the information provided. Actions may range from dispatching additional trained personnel to the scene to activating the local emergency response plan. Ensure that local fire and police departments have been notified.

2. EMERGENCY RESPONSE TELEPHONE NUMBER

Locate and call the telephone number listed on the shipping document. The person answering the phone at the listed emergency response number must be knowledgeable of the materials and mitigation actions to be taken, or must have immediate access to a person who has the required knowledge.

3. NATIONAL ASSISTANCE

Contact the appropriate emergency response agency listed on the inside back cover of this guidebook when the emergency response telephone number is not available. Upon receipt of a call describing the nature of the incident, the agency will provide immediate advice on handling the early stages of the incident. The agency will also contact the shipper or manufacturer of the material for more detailed information and request on-scene assistance when necessary.

Collect and provide as much of the following information as can safely be obtained to your chain-of-command and specialists contacted for technical guidance:

Your name, call back telephone number, FAX number
Location and nature of problem (spill, fire, etc.)
Name and identification number of material(s) involved
Shipper/consignee/point of origin
Carrier name, rail car or truck number
Container type and size
Quantity of material transported/released
Local conditions (weather, terrain, proximity to schools, hospitals, waterways, etc.)
Injuries and exposures
Local emergency services that have been notified

CANADA

1. CANUTEC

CANUTEC is the **Canadian Transport Emergency Centre** operated by the Transport Dangerous Goods Directorate of Transport Canada.

CANUTEC provides a national bilingual (French and English) advisory service and is staffed by professional chemists experienced and trained in interpreting technical information and providing emergency response advice.

In an emergency, CANUTEC may be called collect at
613-996-6666 (24 hours)
***666 cellular (Press Star 666, Canada only)**

In a non-emergency situation, please call the information line at 613-992-4624 (24 hours).

2. PROVINCIAL AGENCIES

Although technical information and emergency response assistance can be obtained from **CANUTEC**, there are federal and provincial regulations requiring the reporting of dangerous goods incidents to certain authorities.

The following list of provincial agencies is supplied for your convenience.

Province	Emergency Authority and/or Telephone Number
Alberta	Local Police and Provincial Authorities 1-800-272-9600*
British Columbia	Local Police or 1-800-663-3456
Manitoba	Local Police or fire brigade, as appropriate, or 204-945-4888
New Brunswick	Local Police or 1-800-565-1633** or 902-426-6030
Newfoundland	Local Police or 709-772-2083
Northwest Territories	867-920-8130
Nova Scotia	Local Police or 1-800-565-1633** or 902-426-6030
Nunavut	867-920-8130
Ontario	Local Police
Prince Edward Island	Local Police or 1-800-565-1633** or 902-426-6030
Quebec	Local Police
Saskatchewan	Local Police or 1-800-667-7525
Yukon Territory	867-667-7244

* This number is not accessible from outside Alberta.

** This number is not accessible from outside of New Brunswick, Nova Scotia or Prince Edward Island.

NOTE:

1. The appropriate federal agency must be notified in the case of rail, air or marine incidents.
2. The nearest police department must be notified in the case of lost, stolen or misplaced explosives, radioactive materials or infectious substances.
3. **CANUTEC must** be notified in the case of:
    a. lost, stolen or misplaced infectious substances;
    b. an incident involving infectious substances;
    c. an incident where the shipping documents display **CANUTEC's** telephone number 613-996-6666 as the emergency telephone number; or
    d. a dangerous goods incident in which a railway vehicle is involved.

UNITED STATES

1. **CHEMTREC®**, a 24-hour emergency response communication service, can be reached as follows:

CALL **CHEMTREC®** (24 hours)
1-800-424-9300
(Toll-free in the U.S., Canada, and the U.S. Virgin Islands)
For calls originating elsewhere:
703-527-3887 (Collect calls are accepted)
or

2. **CHEM-TEL, INC.**, a 24-hour emergency response communication service, can be reached as follows:

CALL **CHEM-TEL, INC.** (24 hours)
1-800-255-3924
(Toll-free in the U.S., Canada, and the U.S. Virgin Islands)
For calls originating elsewhere:
813-248-0585 (Collect calls are accepted)
or

3. **INFOTRAC**, a 24-hour emergency response communication service, can be reached as follows:

CALL **INFOTRAC** (24 hours)
1-800-535-5053
(Toll-free in the U.S., Canada, and the U.S. Virgin Islands)
For calls originating elsewhere:
352-323-3500 (Collect calls are accepted)
or

4. **3E COMPANY**, a 24-hour emergency response communication service, can be reached as follows:

CALL **3E COMPANY** (24 hours)
1-800-451-8346
(Toll-free in the U.S., Canada, and the U.S. Virgin Islands)
For calls originating elsewhere:
760-602-8703 (Collect calls are accepted)

The emergency response information services shown above have requested to be listed as providers of emergency response information and have agreed to provide emergency response information to all callers. They maintain periodically updated lists of state and Federal radiation authorities who provide information and technical assistance on handling incidents involving radioactive materials.

5. NATIONAL RESPONSE CENTER (NRC)

The NRC, which is operated by the U.S. Coast Guard, receives reports required when dangerous goods and hazardous substances are spilled. After receiving notification of an incident, the NRC will immediately notify the appropriate Federal On-Scene Coordinator and concerned Federal agencies. Federal law requires that anyone who releases into the environment a reportable quantity of a hazardous substance (including oil when water is, or may be affected) or a material identified as a marine pollutant, must **immediately** notify the NRC. When in doubt as to whether the amount released equals the required reporting levels for these materials, the NRC should be notified.

CALL **NRC** (24 hours)
1-800-424-8802
(Toll-free in the U.S., Canada, and the U.S. Virgin Islands)
202-267-2675 in the District of Columbia

Calling the emergency response telephone number, CHEMTREC®, CHEM-TEL, INC., INFOTRAC or 3E COMPANY, does not constitute compliance with regulatory requirements to call the NRC.

6. MILITARY SHIPMENTS

For assistance at incidents involving materials being shipped by, for, or to the Department of Defense (DOD), call one of the following numbers (24 hours):

703-697-0218 (call collect) (U.S. Army Operations Center) for incidents involving explosives and ammunition.

1-800-851-8061 (toll free in the U.S.) (Defense Logistics Agency) for incidents involving dangerous goods other than explosives and ammunition.

The above numbers are for **emergencies** only.

MEXICO

1. **SETIQ** (Emergency Transportation System for the Chemical Industry), a service of the National Association of Chemical Industries (ANIQ), can be reached as follows:

Call **SETIQ** (24 hours)
01-800-00-214-00 in the Mexican Republic
For calls originating in Mexico City and the Metropolitan Area
5559-1588
For calls originating elsewhere, call
0-11-52-5-559-1588

2. **CECOM**, the National Center for Communications of the Civil Protection Agency, can be reached as follows:

CALL **CECOM** (24 hours)
01-800-00-413-00 in the Mexican Republic
For calls originating in Mexico City and the Metropolitan Area
5550-1496, 5550-1552, 5550-1485, or 5550-4885
For calls originating elsewhere, call
0-11-52-5-550-1496, or 0-11-52-5-550-1552
0-11-52-5-550-1485, or 0-11-52-5-550-4885

HAZARD CLASSIFICATION SYSTEM

The hazard class of dangerous goods is indicated either by its class (or division) number or name. For a placard corresponding to the primary hazard class of a material, the hazard class or division number must be displayed in the lower corner of the placard. However, no hazard class or division number may be displayed on a placard representing the subsidiary hazard of a material. For other than Class 7 or the OXYGEN placard, text indicating a hazard (for example, "CORROSIVE") is not required. Text is shown only in the U.S. The hazard class or division number must appear on the shipping document after each shipping name.

Class 1 - Explosives

Division 1.1	Explosives with a mass explosion hazard
Division 1.2	Explosives with a projection hazard
Division 1.3	Explosives with predominantly a fire hazard
Division 1.4	Explosives with no significant blast hazard
Division 1.5	Very insensitive explosives; blasting agents
Division 1.6	Extremely insensitive detonating articles

Class 2 - Gases

Division 2.1	Flammable gases
Division 2.2	Non-flammable, non-toxic* compressed gases
Division 2.3	Gases toxic* by inhalation
Division 2.4	Corrosive gases (Canada)

Class 3 - Flammable liquids (and Combustible liquids [U.S.])

Class 4 - Flammable solids; Spontaneously combustible materials; and Dangerous when wet materials

Division 4.1	Flammable solids
Division 4.2	Spontaneously combustible materials
Division 4.3	Dangerous when wet materials

Class 5 - Oxidizers and Organic peroxides

Division 5.1	Oxidizers
Division 5.2	Organic peroxides

Class 6 - Toxic* materials and Infectious substances

Division 6.1	Toxic* materials
Division 6.2	Infectious substances

Class 7 - Radioactive materials

Class 8 - Corrosive materials

Class 9 - Miscellaneous dangerous goods

Division 9.1	Miscellaneous dangerous goods (Canada)
Division 9.2	Environmentally hazardous substances (Canada)
Division 9.3	Dangerous wastes (Canada)

* The words "poison" or "poisonous" are synonymous with the word "toxic".

NOTES

INTRODUCTION TO THE TABLE OF PLACARDS

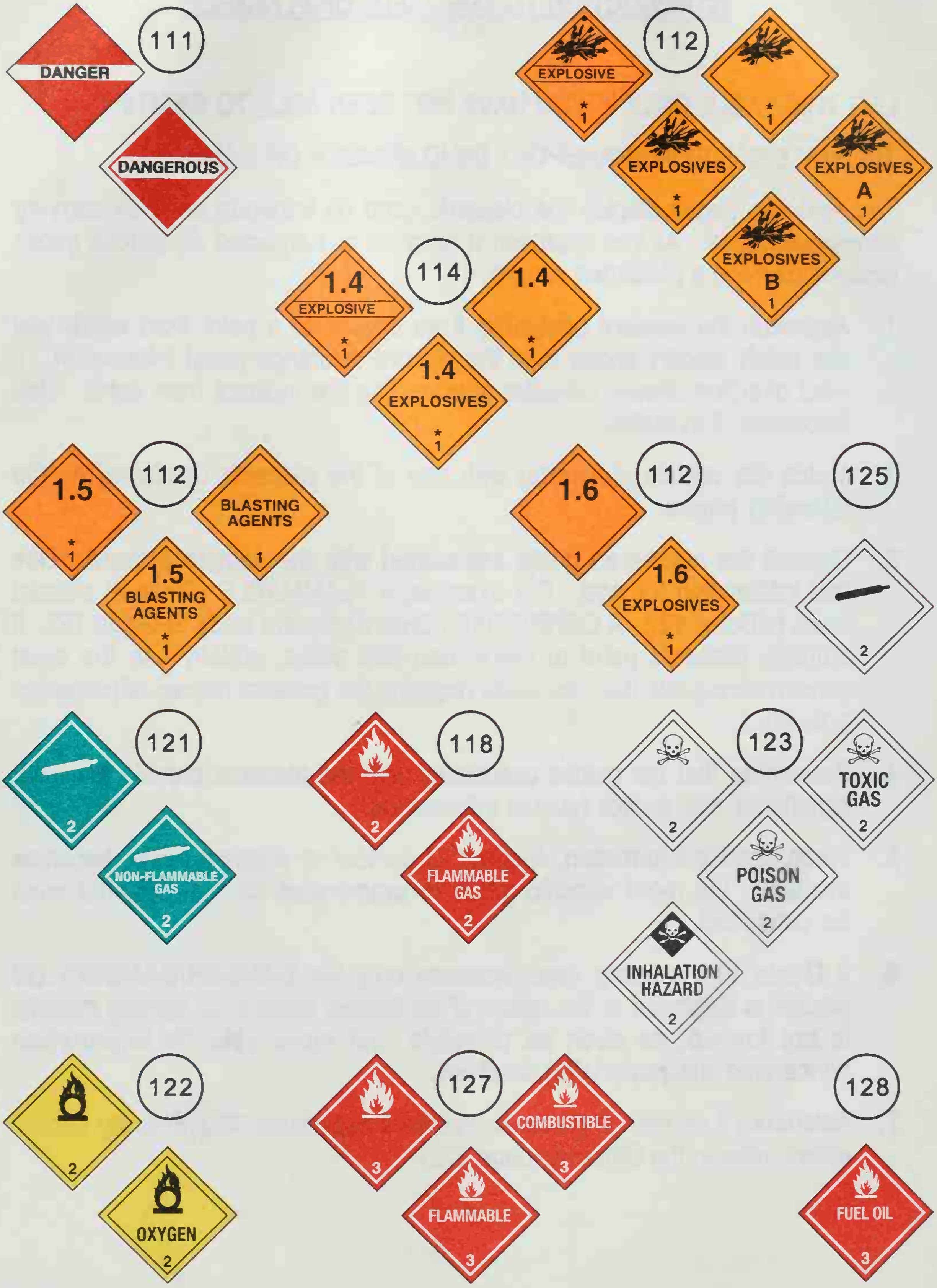
USE THIS TABLE ONLY IF YOU HAVE NOT BEEN ABLE TO IDENTIFY THE MATERIAL(S) IN TRANSPORT BY ID NUMBER OR NAME

The next two pages display the placards used on transport vehicles carrying dangerous goods. As you approach a reported or suspected dangerous goods incident involving a placarded vehicle:

1. **Approach the incident cautiously from upwind to a point from which you can safely identify and/or read the placard or orange panel information.** If wind direction allows, consider approaching the incident from uphill. Use binoculars, if available.
2. **Match the vehicle placard(s) with one of the placards displayed on the following pages.**
3. **Consult the numbered guide associated with the sample placard. Use that information for now.** For example, a FLAMMABLE (Class 3) placard leads to Guide **127**. A CORROSIVE (Class 8) placard leads to Guide **153**. If multiple placards point to more than one guide, initially use the most conservative guide (i.e., the guide requiring the greatest degree of protective actions).
4. **Remember that the guides associated with the placards provide the most significant risk and/or hazard information.**
5. **When specific information,** such as ID number or shipping name, **becomes available, the more specific guide recommended for that material must be consulted.**
6. **If Guide 111 is being used because only the DANGER/DANGEROUS placard is displayed or the nature of the spilled, leaking, or burning material is not known, as soon as possible, get more specific information concerning the material(s) involved.**
7. Asterisks (*) on orange placards represent explosives "Compatibility Group" letters; refer to the Glossary (page 372).

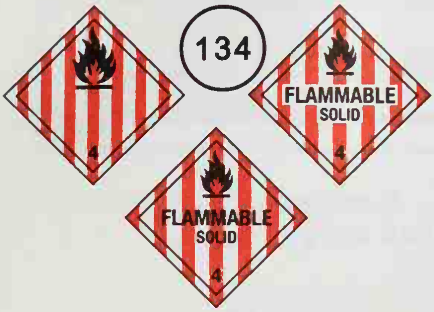
TABLE OF PLACARDS AND INITIAL

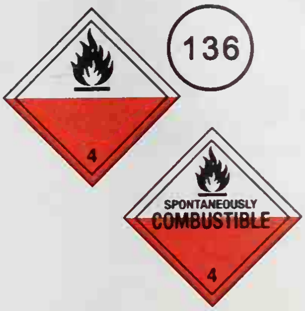
USE THIS TABLE ONLY IF MATERIALS CANNOT BE SPECIFICALLY IDENTIFIED BY

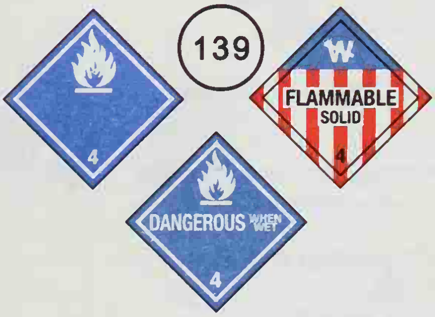

111
DANGER
DANGEROUS
112
EXPLOSIVE 1
1
EXPLOSIVES 1
EXPLOSIVES A 1
EXPLOSIVES B 1
114
1.4 EXPLOSIVE 1
1.4 1
1.4 EXPLOSIVES 1
112
1.5 1
BLASTING AGENTS 1
1.5 BLASTING AGENTS 1
112
1.6 1
1.6 EXPLOSIVES 1
125
2
121
2
NON-FLAMMABLE GAS 2
118
2
FLAMMABLE GAS 2
123
2
TOXIC GAS 2
POISON GAS 2
INHALATION HAZARD 2
122
2
OXYGEN 2
127
3
COMBUSTIBLE 3
FLAMMABLE 3
128
FUEL OIL 3

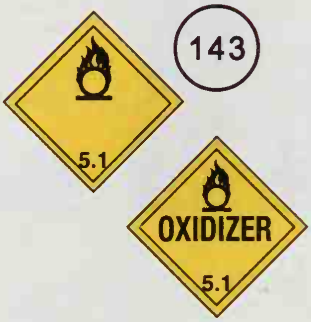
RESPONSE GUIDES TO USE ON-SCENE

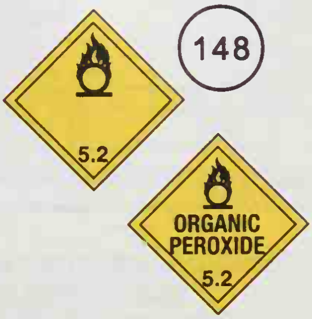
USING THE SHIPPING DOCUMENT, NUMBERED PLACARD, OR ORANGE PANEL NUMBER

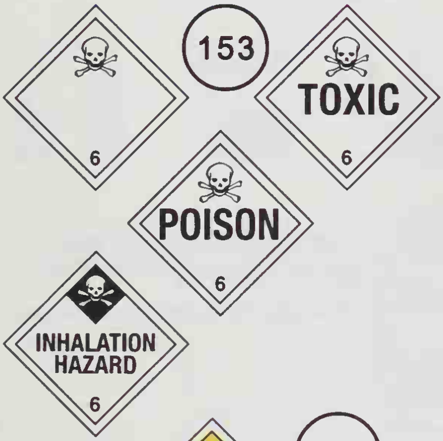

134
4
FLAMMABLE
SOLID
4
FLAMMABLE
SOLID
4

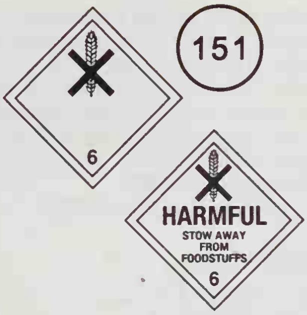

136
4
SPONTANEOUSLY
COMBUSTIBLE
4

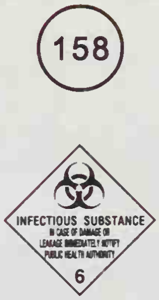

139
4
W
FLAMMABLE
SOLID
4
DANGEROUS WHEN WET
4

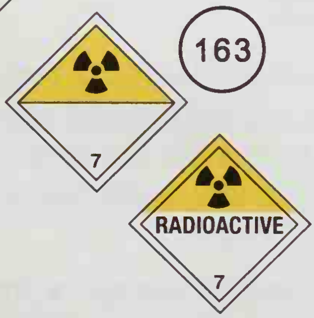

143
5.1
OXIDIZER
5.1

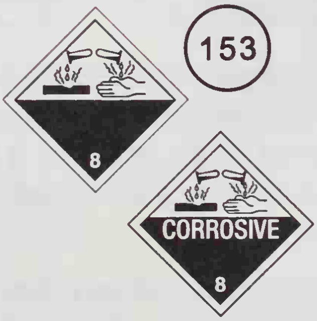

148
5.2
ORGANIC
PEROXIDE
5.2

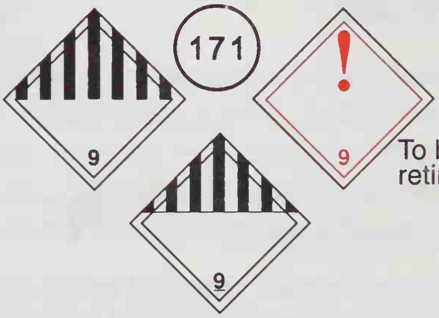

153
6
TOXIC
6
POISON
6
INHALATION
HAZARD
6


151
6
HARMFUL
STOW AWAY
FROM
FOODSTUFFS
6

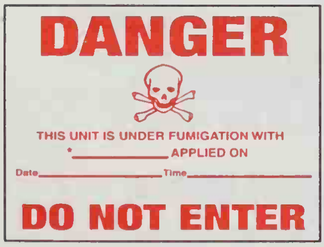

158
INFECTIOUS SUBSTANCE
IN CASE OF DAMAGE OR
LEAKAGE IMMEDIATELY NOTIFY
PUBLIC HEALTH AUTHORITY
6

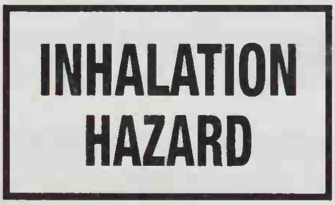

163
7
RADIOACTIVE
7

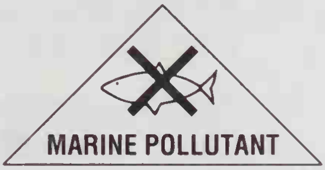

153
8
CORROSIVE
8



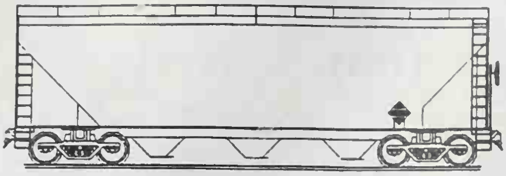
To be retired


DANGER
THIS UNIT IS UNDER FUMIGATION WITH
APPLIED ON
Date
Time
DO NOT ENTER

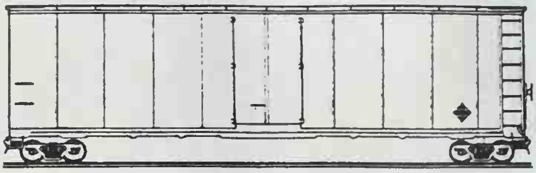

INHALATION
HAZARD


MARINE POLLUTANT

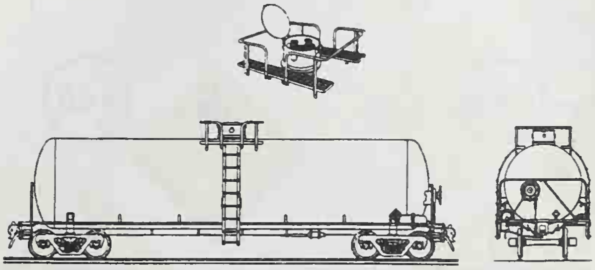
RAIL CAR IDENTIFICATION CHART*



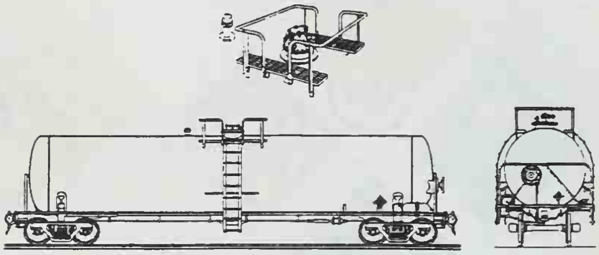
Hopper car
Dry bulk
140



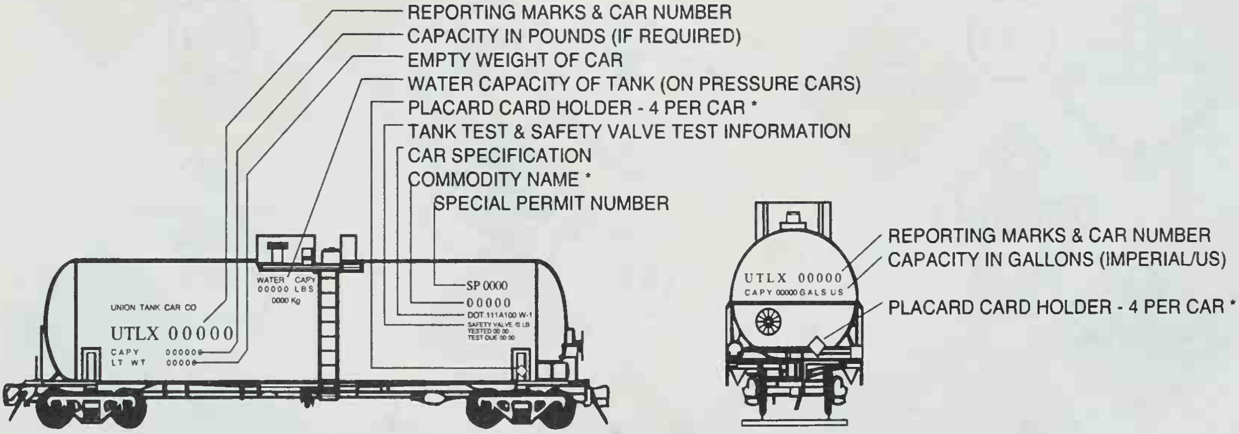
Box car
Mixed cargo
111



Pressurized tank car
Compressed
liquefied gases
117



Low pressure
tank car
Liquids
131


REPORTING MARKS & CAR NUMBER
CAPACITY IN POUNDS (IF REQUIRED)
EMPTY WEIGHT OF CAR
WATER CAPACITY OF TANK (ON PRESSURE CARS)
PLACARD CARD HOLDER - 4 PER CAR *
TANK TEST & SAFETY VALVE TEST INFORMATION
CAR SPECIFICATION
COMMODITY NAME *
SPECIAL PERMIT NUMBER
UNION TANK CAR CO
UTLX 00000
CAPY 000000
LT WT 00000
WATER CAPY 00000 LBS 0000 Kg
SP 0000
00000
DOT 111A100 W-1
SAFETY VALVE IS LB TESTED 00 00 TEST DUE 00 00
UTLX 00000
CAPY 00000 GALS US
REPORTING MARKS & CAR NUMBER
CAPACITY IN GALLONS (IMPERIAL/US)
PLACARD CARD HOLDER - 4 PER CAR *

CAUTION: Emergency response personnel must be aware that rail tank cars vary widely in construction, fittings and purpose. Tank cars could transport products that may be solids, liquids or gases. The products may be under pressure. It is essential that products be identified by consulting shipping documents or train consist or contacting dispatch centers before emergency response is initiated.

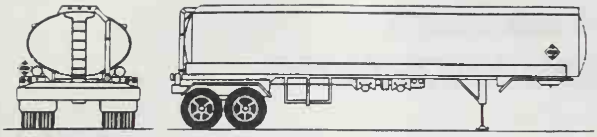
The information stenciled on the sides or ends of tank cars, as illustrated above, may be used to identify the product utilizing:

a. the commodity name shown; or

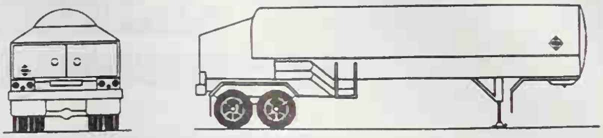
b. the other information shown, especially reporting marks and car number which, when supplied to a dispatch center, will facilitate the identification of the product.

* **The recommended guides should be considered as last resort if product cannot be identified by any other means.**

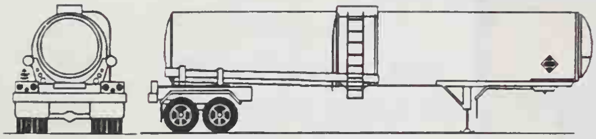
ROAD TRAILER IDENTIFICATION CHART*



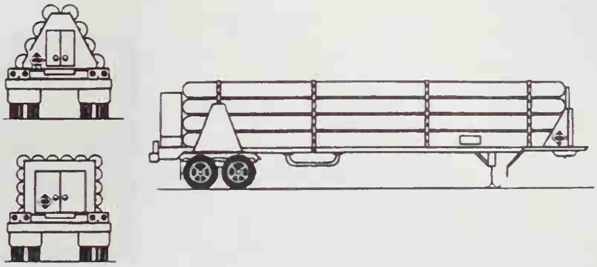
MC306 Nonpressure Liquid Tank 131



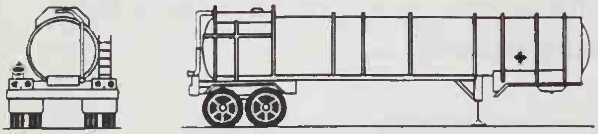
MC-338 Cryogenic Liquid Tank 117



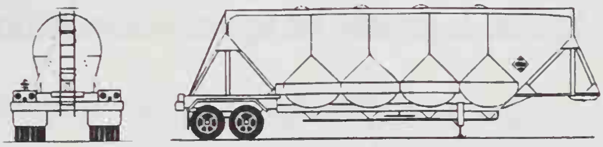
MC307 Low Pressure Chemical Tank 137



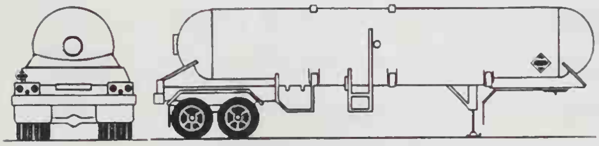
Compressed Gas/ Tube Trailer 117



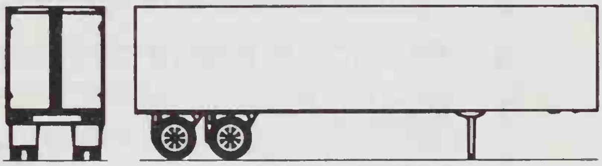
MC-312 Corrosive Liquid Tank 137



Dry Bulk Cargo Tanker 134



MC-331 High Pressure Tank 117



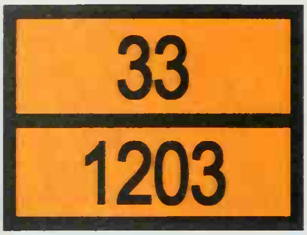
Mixed Cargo 111

CAUTION: This chart depicts only the most general shapes of road trailers. Emergency response personnel must be aware that there are many variations of road trailers, not illustrated above, that are used for shipping chemical products. The suggested guides are for the most hazardous products that may be transported in these trailer types.

* **The recommended guides should be considered as last resort if product cannot be identified by any other means.**

HAZARD IDENTIFICATION CODES DISPLAYED ON SOME INTERMODAL CONTAINERS

Hazard identification codes, referred to as "hazard identification numbers" under European and some South American regulations, may be found in the top half of an orange panel on some intermodal bulk containers. The 4-digit identification number is in the bottom half of the orange panel.



The hazard identification code in the top half of the orange panel consists of two or three figures. In general, the figures indicate the following hazards:

2 - EMISSION OF GAS DUE TO PRESSURE OR CHEMICAL REACTION

3 - FLAMMABILITY OF LIQUIDS (VAPORS) AND GASES OR SELF-HEATING LIQUID

4 - FLAMMABILITY OF SOLIDS OR SELF-HEATING SOLID

5 - OXIDIZING (FIRE-INTENSIFYING) EFFECT

6 - TOXICITY OR RISK OF INFECTION

7 - RADIOACTIVITY

8 - CORROSIVITY

9 - RISK OF SPONTANEOUS VIOLENT REACTION

- Doubling of a figure indicates an intensification of that particular hazard (i.e. 33, 66, 88).
- Where the hazard associated with a material can be adequately indicated by a single figure, the figure is followed by a zero (i.e. 30, 40, 50).
- A hazard identification code prefixed by the letter "X" indicates that the material will react dangerously with water (i.e. X88).

HAZARD IDENTIFICATION CODES
DISPLAYED ON SOME INTERMODAL CONTAINERS

The hazard identification codes listed below have the following meanings:

20	Inert gas
22	Refrigerated gas
223	Refrigerated gas, flammable
225	Refrigerated gas, oxidizing (fire-intensifying)
23	Flammable gas
236	Flammable gas, toxic
239	Flammable gas which can spontaneously lead to violent reaction
25	Oxidizing (fire-intensifying) gas
26	Toxic gas
263	Toxic gas, flammable
265	Toxic gas, oxidizing (fire-intensifying)
266	Highly toxic gas
268	Toxic gas, corrosive
30	Flammable liquid
323	Flammable liquid which reacts with water, emitting flammable gas
X323	Flammable liquid which reacts dangerously with water, emitting flammable gas
33	Highly flammable liquid
333	Pyrophoric liquid
X333	Pyrophoric liquid which reacts dangerously with water
336	Highly flammable liquid, toxic
338	Highly flammable liquid, corrosive
X338	Highly flammable liquid, corrosive, which reacts dangerously with water
339	Highly flammable liquid which can spontaneously lead to violent reaction
36	Flammable liquid, toxic, or self-heating liquid, toxic
362	Flammable liquid, toxic, which reacts with water, emitting flammable gas
X362	Flammable liquid, toxic, which reacts dangerously with water, emitting flammable gas
368	Flammable liquid, toxic, corrosive
38	Flammable liquid, corrosive
382	Flammable liquid, corrosive, which reacts with water, emitting flammable gas
X382	Flammable liquid, corrosive, which reacts dangerously with water, emitting flammable gas
39	Flammable liquid which can spontaneously lead to violent reaction
40	Flammable solid, or self-reactive material, or self-heating material
423	Solid which reacts with water, emitting flammable gas

HAZARD IDENTIFICATION CODES
DISPLAYED ON SOME INTERMODAL CONTAINERS

X423	Flammable solid which reacts dangerously with water, emitting flammable gas
43	Spontaneously flammable (pyrophoric) solid
44	Flammable solid, in the molten state at an elevated temperature
446	Flammable solid, toxic, in the molten state at an elevated temperature
46	Flammable solid, toxic, or self-heating solid, toxic
462	Toxic solid which reacts with water, emitting flammable gas
X462	Solid which reacts with water, emitting toxic gas
48	Flammable or self-heating solid, corrosive
482	Corrosive solid which reacts with water, emitting flammable gas
X482	Solid which reacts dangerously with water, emitting corrosive gas
50	Oxidizing (fire-intensifying) substance
539	Flammable organic peroxide
55	Strongly oxidizing (fire-intensifying) substance
556	Strongly oxidizing (fire-intensifying) substance, toxic
558	Strongly oxidizing (fire-intensifying) substance, corrosive
559	Strongly oxidizing (fire-intensifying) substance which can spontaneously lead to violent reaction
56	Oxidizing (fire-intensifying) substance, toxic
568	Oxidizing (fire-intensifying) substance, toxic, corrosive
58	Oxidizing (fire-intensifying) substance, corrosive
59	Oxidizing (fire intensifying) substance which can spontaneously lead to violent reaction
60	Toxic material
606	Infectious substance
623	Toxic liquid which reacts with water, emitting flammable gas
63	Toxic liquid, flammable
638	Toxic liquid, flammable, corrosive
639	Toxic liquid, flammable, which can spontaneously lead to violent reaction
64	Toxic solid, flammable or self-heating
642	Toxic solid which reacts with water, emitting flammable gas
65	Toxic material, oxidizing (fire-intensifying)
66	Highly toxic material
663	Highly toxic liquid, flammable
664	Highly toxic solid, flammable or self-heating
665	Highly toxic material, oxidizing (fire-intensifying)
668	Highly toxic material, corrosive

HAZARD IDENTIFICATION CODES DISPLAYED ON SOME INTERMODAL CONTAINERS

669	Highly toxic material which can spontaneously lead to violent reaction
68	Toxic material, corrosive
69	Toxic material which can spontaneously lead to violent reaction

70	Radioactive material
72	Radioactive gas
723	Radioactive gas, flammable
73	Radioactive liquid, flammable
74	Radioactive solid, flammable
75	Radioactive material, oxidizing (fire-intensifying)
76	Radioactive material, toxic
78	Radioactive material, corrosive

80	Corrosive material
X80	Corrosive material which reacts dangerously with water
823	Corrosive liquid which reacts with water, emitting flammable gas
83	Corrosive liquid, flammable
X83	Corrosive liquid, flammable, which reacts dangerously with water
839	Corrosive liquid, flammable, which can spontaneously lead to violent reaction
X839	Corrosive liquid, flammable, which can spontaneously lead to violent reaction and which reacts dangerously with water
84	Corrosive solid, flammable or self-heating
842	Corrosive solid which reacts with water, emitting flammable gas
85	Corrosive material, oxidizing (fire-intensifying)
856	Corrosive material, oxidizing and toxic
86	Corrosive material, toxic
88	Highly corrosive material
X88	Highly corrosive material which reacts dangerously with water
883	Highly corrosive liquid, flammable
884	Highly corrosive solid, flammable or self-heating
885	Highly corrosive material, oxidizing (fire-intensifying)
886	Highly corrosive material, toxic
X886	Highly corrosive material, toxic, which reacts dangerously with water
89	Corrosive material which can spontaneously lead to violent reaction

90	Miscellaneous dangerous substance; environmentally hazardous substance
99	Miscellaneous dangerous substance transported at elevated temperature

Note: If an entry is highlighted in either the yellow-bordered or blue-bordered pages AND THERE IS NO FIRE, go directly to the Table of Initial Isolation and Protective Action Distances (green-bordered pages) and look up the ID number and name of material to obtain initial isolation and protective action distances. IF THERE IS A FIRE, or IF A FIRE IS INVOLVED, go directly to the appropriate guide (orange-bordered pages) and use the evacuation information shown under PUBLIC SAFETY.

ID No.	Guide No.	Name of Material
——	112	Ammonium nitrate-fuel oil mixtures
——	158	Biological agents
——	112	Blasting agent, n.o.s.
——	171	Cargo transport unit under fumigation
——	154	Chemical kits (containing corrosive substances)
——	128	Chemical kits (containing flammable liquids)
——	133	Chemical kits (containing flammable solids)
——	140	Chemical kits (containing oxidizing substances)
——	153	Chemical kits (containing poisonous liquids)
——	154	Chemical kits (containing poisonous solids)
——	153	Chemical kits (containing toxic liquids)
——	154	Chemical kits (containing toxic solids)
——	129	1-Chloroheptane
——	129	1-Chlorohexane
——	152	m-Dichlorobenzene
——	136	p-Diethylnitrosoaniline
——	153	2-Ethyl-3-propylacrolein
——	112	Explosive A
——	112	Explosive B
——	114	Explosive C
——	112	Explosives, division 1.1, 1.2, 1.3, 1.5 or 1.6
——	114	Explosives, division 1.4
——	133	Fibres, animal or vegetable, burnt, wet or damp
——	133	Fibres, vegetable, dry

ID No.	Guide No.	Name of Material
——	159	Methylbromoacetone
——	135	p-Nitrosodiethylaniline
——	171	Plastic molding material
——	171P	Polymerizable material, stabilized with dry ice
——	153	Toxins
——	133	Wool waste, wet
1001	116	Acetylene
1001	116	Acetylene, dissolved
1002	122	Air, compressed
1003	122	Air, refrigerated liquid (cryogenic liquid)
1003	122	Air, refrigerated liquid (cryogenic liquid), non-pressurized
1005	125	Ammonia, anhydrous
1005	125	Ammonia, anhydrous, liquefied
1005	125	Ammonia solution, with more than 50% Ammonia
1005	125	Anhydrous ammonia
1005	125	Anhydrous ammonia, liquefied
1006	121	Argon
1006	121	Argon, compressed
1008	125	Boron trifluoride
1008	125	Boron trifluoride, compressed
1009	126	Bromotrifluoromethane
1009	126	Refrigerant gas R-13B1
1010	116P	Butadienes, inhibited
1011	115	Butane
1011	115	Butane mixture
1012	115	Butylene
1013	120	Carbon dioxide
1013	120	Carbon dioxide, compressed
1014	122	Carbon dioxide and Oxygen mixture

ID No.	Guide No.	Name of Material
1014	**122**	Carbon dioxide and Oxygen mixture, compressed
1014	**122**	Oxygen and Carbon dioxide mixture
1014	**122**	Oxygen and Carbon dioxide mixture, compressed
1015	**126**	Carbon dioxide and Nitrous oxide mixture
1015	**126**	Nitrous oxide and Carbon dioxide mixture
1016	**119**	Carbon monoxide
1016	**119**	Carbon monoxide, compressed
1017	**124**	Chlorine
1018	**126**	Chlorodifluoromethane
1018	**126**	Refrigerant gas R-22
1020	**126**	Chloropentafluoroethane
1020	**126**	Refrigerant gas R-115
1021	**126**	1-Chloro-1,2,2,2-tetrafluoroethane
1021	**126**	Chlorotetrafluoroethane
1021	**126**	Refrigerant gas R-124
1022	**126**	Chlorotrifluoromethane
1022	**126**	Refrigerant gas R-13
1023	**119**	Coal gas
1023	**119**	Coal gas, compressed
1026	**119**	Cyanogen
1026	**119**	Cyanogen, liquefied
1026	**119**	Cyanogen gas
1027	**115**	Cyclopropane
1027	**115**	Cyclopropane, liquefied
1028	**126**	Dichlorodifluoromethane
1028	**126**	Refrigerant gas R-12
1029	**126**	Dichlorofluoromethane
1029	**126**	Refrigerant gas R-21
1030	**115**	1,1-Difluoroethane
1030	**115**	Difluoroethane
1030	**115**	Refrigerant gas R-152a
1032	**118**	Dimethylamine, anhydrous
1033	**115**	Dimethyl ether
1035	**115**	Ethane
1035	**115**	Ethane, compressed
1036	**118**	Ethylamine
1037	**115**	Ethyl chloride
1038	**115**	Ethylene, refrigerated liquid (cryogenic liquid)
1039	**115**	Ethyl methyl ether
1039	**115**	Methyl ethyl ether
1040	**119P**	Ethylene oxide
1040	**119P**	Ethylene oxide with Nitrogen
1041	**115**	Carbon dioxide and Ethylene oxide mixture, with more than 9% but not more than 87% Ethylene oxide
1041	**115**	Carbon dioxide and Ethylene oxide mixtures, with more than 6% Ethylene oxide
1041	**115**	Ethylene oxide and Carbon dioxide mixture, with more than 9% but not more than 87% Ethylene oxide
1041	**115**	Ethylene oxide and Carbon dioxide mixtures, with more than 6 % Ethylene oxide
1043	**125**	Fertilizer, ammoniating solution, with free Ammonia
1044	**126**	Fire extinguishers with compressed gas
1044	**126**	Fire extinguishers with liquefied gas
1045	**124**	Fluorine

ID No.	Guide No.	Name of Material
1045	**124**	Fluorine, compressed
1046	**121**	Helium
1046	**121**	Helium, compressed
1048	**125**	Hydrogen bromide, anhydrous
1049	**115**	Hydrogen
1049	**115**	Hydrogen, compressed
1050	**125**	Hydrogen chloride, anhydrous
1051	**117**	AC
1051	**117**	Hydrocyanic acid, aqueous solutions, with more than 20% Hydrogen cyanide
1051	**117**	Hydrocyanic acid, liquefied
1051	**117**	Hydrogen cyanide, anhydrous, stabilized
1051	**117**	Hydrogen cyanide, stabilized
1052	**125**	Hydrogen fluoride, anhydrous
1053	**117**	Hydrogen sulfide
1053	**117**	Hydrogen sulfide, liquefied
1053	**117**	Hydrogen sulphide
1053	**117**	Hydrogen sulphide, liquefied
1055	**115**	Isobutylene
1056	**121**	Krypton
1056	**121**	Krypton, compressed
1057	**115**	Cigarette lighter, with flammable gas
1057	**115**	Flammable gas in lighter for cigars, cigarettes, etc.
1057	**115**	Lighter refills (cigarettes) (flammable gas)
1057	**115**	Lighters (cigarettes) (flammable gas)
1058	**121**	Liquefied gas (nonflammable)
1058	**121**	Liquefied gases, non-flammable, charged with Nitrogen, Carbon dioxide or Air
1060	**116P**	Methylacetylene and Propadiene mixture, stabilized
1060	**116P**	Propadiene and Methylacetylene mixture, stabilized
1061	**118**	Methylamine, anhydrous
1062	**123**	Methyl bromide
1063	**115**	Methyl chloride
1063	**115**	Refrigerant gas R-40
1064	**117**	Methyl mercaptan
1065	**121**	Neon
1065	**121**	Neon, compressed
1066	**121**	Nitrogen
1066	**121**	Nitrogen, compressed
1067	**124**	Dinitrogen tetroxide
1067	**124**	Dinitrogen tetroxide, liquefied
1067	**124**	Nitrogen dioxide
1067	**124**	Nitrogen dioxide, liquefied
1067	**124**	Nitrogen peroxide, liquid
1067	**124**	Nitrogen tetroxide, liquid
1069	**125**	Nitrosyl chloride
1070	**122**	Nitrous oxide
1070	**122**	Nitrous oxide, compressed
1071	**119**	Oil gas
1071	**119**	Oil gas, compressed
1072	**122**	Oxygen
1072	**122**	Oxygen, compressed
1073	**122**	Oxygen, refrigerated liquid (cryogenic liquid)
1075	**115**	Butane
1075	**115**	Butane mixture
1075	**115**	Butylene
1075	**115**	Isobutane

ID No.	Guide No.	Name of Material
1075	115	Isobutane mixture
1075	115	Isobutylene
1075	115	Liquefied petroleum gas
1075	115	LPG
1075	115	Petroleum gases, liquefied
1075	115	Propane
1075	115	Propane mixture
1075	115	Propylene
1076	125	CG
1076	125	Diphosgene
1076	125	DP
1076	125	Phosgene
1077	115	Propylene
1078	126	Dispersant gas, n.o.s.
1078	126	Refrigerant gas, n.o.s.
1079	125	Sulfur dioxide
1079	125	Sulfur dioxide, liquefied
1079	125	Sulphur dioxide
1079	125	Sulphur dioxide, liquefied
1080	126	Sulfur hexafluoride
1080	126	Sulphur hexafluoride
1081	116P	Tetrafluoroethylene, inhibited
1082	119P	Trifluorochloroethylene
1082	119P	Trifluorochloroethylene, inhibited
1083	118	Trimethylamine, anhydrous
1085	116P	Vinyl bromide, inhibited
1086	116P	Vinyl chloride
1086	116P	Vinyl chloride, inhibited
1086	116P	Vinyl chloride, stabilized
1087	116P	Vinyl methyl ether
1087	116P	Vinyl methyl ether, inhibited
1088	127	Acetal

ID No.	Guide No.	Name of Material
1089	129	Acetaldehyde
1090	127	Acetone
1091	127	Acetone oils
1092	131P	Acrolein, inhibited
1093	131P	Acrylonitrile, inhibited
1098	131	Allyl alcohol
1099	131	Allyl bromide
1100	131	Allyl chloride
1104	129	Amyl acetates
1105	129	Amyl alcohols
1105	129	Pentanols
1106	132	Amylamines
1107	129	Amyl chloride
1108	127	n-Amylene
1108	127	1-Pentene
1109	129	Amyl formates
1110	127	n-Amyl methyl ketone
1110	127	Amyl methyl ketone
1110	127	Methyl amyl ketone
1111	130	Amyl mercaptan
1112	140	Amyl nitrate
1113	129	Amyl nitrite
1114	130	Benzene
1118	130	Brake fluid, hydraulic
1120	129	Butanols
1120	129	Butyl alcohol
1123	129	Butyl acetates
1125	132	n-Butylamine
1126	129	1-Bromobutane
1126	129	n-Butyl bromide
1127	130	Butyl chloride
1127	130	Chlorobutanes
1128	129	n-Butyl formate

ID No.	Guide No.	Name of Material
1129	**129**	Butyraldehyde
1130	**128**	Camphor oil
1131	**131**	Carbon bisulfide
1131	**131**	Carbon bisulphide
1131	**131**	Carbon disulfide
1131	**131**	Carbon disulphide
1133	**128**	Adhesives (flammable)
1133	**128**	Cement (flammable)
1133	**128**	Cement, container, linoleum, tile or wallboard, liquid
1133	**128**	Cement, leather
1133	**128**	Cement, liquid, n.o.s.
1133	**128**	Cement, pyroxylin
1133	**128**	Cement, roofing, liquid
1133	**128**	Cement, rubber
1134	**130**	Chlorobenzene
1135	**131**	Ethylene chlorohydrin
1136	**128**	Coal tar distillates, flammable
1137	**128**	Coal tar distillate
1139	**127**	Coating solution
1142	**127**	Compound, vulcanizing, liquid (flammable)
1142	**127**	Compounds, polishing, liquid, etc. (flammable)
1142	**127**	Flammable liquid preparations, n.o.s.
1143	**131P**	Crotonaldehyde, inhibited
1143	**131P**	Crotonaldehyde, stabilized
1144	**128**	Crotonylene
1145	**128**	Cyclohexane
1146	**128**	Cyclopentane
1147	**130**	Decahydronaphthalene
1148	**129**	Diacetone alcohol
1149	**127**	Butyl ethers
1149	**127**	Dibutyl ethers
1150	**130P**	1,2-Dichloroethylene
1150	**130P**	Dichloroethylene
1152	**130**	Dichloropentanes
1153	**127**	Ethylene glycol diethyl ether
1154	**132**	Diethylamine
1155	**127**	Diethyl ether
1155	**127**	Ethyl ether
1156	**127**	Diethyl ketone
1157	**127**	Diisobutyl ketone
1158	**132**	Diisopropylamine
1159	**127**	Diisopropyl ether
1160	**129**	Dimethylamine, aqueous solution
1160	**129**	Dimethylamine, solution
1161	**129**	Dimethyl carbonate
1162	**155**	Dimethyldichlorosilane
1163	**131**	1,1-Dimethylhydrazine
1163	**131**	Dimethylhydrazine, unsymmetrical
1164	**130**	Dimethyl sulfide
1164	**130**	Dimethyl sulphide
1165	**127**	Dioxane
1166	**127**	Dioxolane
1167	**131P**	Divinyl ether, inhibited
1168	**127**	Driers, paint or varnish, liquid, n.o.s.
1169	**127**	Extracts, aromatic, liquid
1170	**127**	Ethanol
1170	**127**	Ethanol, solution
1170	**127**	Ethyl alcohol
1170	**127**	Ethyl alcohol, solution
1171	**127**	Ethylene glycol monoethyl ether

ID No.	Guide No.	Name of Material
1172	**129**	Ethylene glycol monoethyl ether acetate
1173	**129**	Ethyl acetate
1175	**129**	Ethylbenzene
1176	**129**	Ethyl borate
1177	**129**	2-Ethylbutyl acetate
1177	**129**	Ethylbutyl acetate
1178	**129**	2-Ethylbutyraldehyde
1179	**127**	Ethyl butyl ether
1180	**129**	Ethyl butyrate
1181	**155**	Ethyl chloroacetate
1182	**155**	Ethyl chloroformate
1183	**139**	Ethyldichlorosilane
1184	**129**	Ethylene dichloride
1185	**131P**	Ethyleneimine, inhibited
1188	**127**	Ethylene glycol monomethyl ether
1189	**129**	Ethylene glycol monomethyl ether acetate
1190	**129**	Ethyl formate
1191	**129**	Ethylhexaldehydes
1191	**129**	Octyl aldehydes
1192	**129**	Ethyl lactate
1193	**127**	Ethyl methyl ketone
1193	**127**	Methyl ethyl ketone
1194	**131**	Ethyl nitrite, solution
1195	**129**	Ethyl propionate
1196	**155**	Ethyltrichlorosilane
1197	**127**	Extracts, flavoring, liquid
1197	**127**	Extracts, flavouring, liquid
1198	**132**	Formaldehyde, solution, flammable
1198	**132**	Formaldehyde, solutions (Formalin)

ID No.	Guide No.	Name of Material
1199	**132P**	Furaldehydes
1199	**132P**	Furfural
1199	**132P**	Furfuraldehydes
1201	**127**	Fusel oil
1202	**128**	Diesel fuel
1202	**128**	Fuel oil
1202	**128**	Fuel oil, no. 1,2,4,5,6
1202	**128**	Gas oil
1202	**128**	Heating oil, light
1203	**128**	Gasohol
1203	**128**	Gasoline
1203	**128**	Motor spirit
1203	**128**	Petrol
1204	**127**	Nitroglycerin, solution in alcohol, with not more than 1% Nitroglycerin
1204	**127**	Spirits of Nitroglycerin, not exceeding 1 % Nitroglycerin
1206	**128**	Heptanes
1207	**129**	Hexaldehyde
1208	**128**	Hexanes
1208	**128**	Neohexane
1210	**129**	Ink, printer's, flammable
1210	**129**	Printing ink, flammable
1210	**129**	Printing ink related material
1212	**129**	Isobutanol
1212	**129**	Isobutyl alcohol
1213	**129**	Isobutyl acetate
1214	**132**	Isobutylamine
1216	**128**	Isooctene
1218	**130P**	Isoprene, inhibited
1219	**129**	Isopropanol
1219	**129**	Isopropyl alcohol

ID No.	Guide No.	Name of Material
1220	**129**	Isopropyl acetate
1221	**132**	Isopropylamine
1222	**130**	Isopropyl nitrate
1223	**128**	Kerosene
1224	**127**	Ketones, liquid, n.o.s.
1226	**127**	Cigarette lighter, with flammable liquid
1226	**127**	Lighters for cigars, cigarettes etc. with lighter fluid
1226	**127**	Lighters for cigars, cigarettes (flammable liquid)
1228	**131**	Mercaptan mixture, aliphatic
1228	**131**	Mercaptan mixture, liquid, flammable, poisonous, n.o.s.
1228	**131**	Mercaptan mixture, liquid, flammable, toxic, n.o.s.
1228	**131**	Mercaptan mixtures, liquid, n.o.s.
1228	**131**	Mercaptans, liquid, flammable, poisonous, n.o.s.
1228	**131**	Mercaptans, liquid, flammable, toxic, n.o.s.
1229	**129**	Mesityl oxide
1230	**131**	Methanol
1230	**131**	Methyl alcohol
1231	**129**	Methyl acetate
1232	**127**	Methyl acetone
1233	**129**	Methylamyl acetate
1234	**127**	Methylal
1235	**132**	Methylamine, aqueous solution
1237	**129**	Methyl butyrate
1238	**155**	Methyl chloroformate
1239	**131**	Methyl chloromethyl ether
1242	**139**	Methyldichlorosilane
1243	**129**	Methyl formate
1244	**131**	Methylhydrazine
1245	**127**	Methyl isobutyl ketone
1246	**127P**	Methyl isopropenyl ketone, inhibited
1247	**129P**	Methyl methacrylate monomer, inhibited
1247	**129P**	Methyl methacrylate monomer, uninhibited
1248	**129**	Methyl propionate
1249	**127**	Methyl propyl ketone
1250	**155**	Methyltrichlorosilane
1251	**131P**	Methyl vinyl ketone
1251	**131P**	Methyl vinyl ketone, stabilized
1255	**128**	Naphtha, petroleum
1255	**128**	Petroleum naphtha
1256	**128**	Naphtha, solvent
1257	**128**	Natural gasoline
1259	**131**	Nickel carbonyl
1261	**129**	Nitromethane
1262	**128**	Isooctane
1262	**128**	Octanes
1263	**128**	Paint (flammable)
1263	**128**	Paint related material (flammable)
1264	**129**	Paraldehyde
1265	**128**	Isopentane
1265	**128**	n-Pentane
1265	**128**	Pentanes
1266	**127**	Perfumery products, with flammable solvents
1267	**128**	Petroleum crude oil
1268	**128**	Petroleum distillates, n.o.s.
1268	**128**	Petroleum products, n.o.s.
1270	**128**	Oil, petroleum, n.o.s.

ID No.	Guide No.	Name of Material
1270	**128**	Petroleum oil
1271	**128**	Petroleum ether
1271	**128**	Petroleum spirit
1272	**129**	Pine oil
1274	**129**	n-Propanol
1274	**129**	normal Propyl alcohol
1274	**129**	Propyl alcohol, normal
1275	**129**	Propionaldehyde
1276	**129**	n-Propyl acetate
1277	**132**	Monopropylamine
1277	**132**	Propylamine
1278	**129**	1-Chloropropane
1278	**129**	Propyl chloride
1279	**130**	1,2-Dichloropropane
1279	**130**	Dichloropropane
1279	**130**	Propylene dichloride
1280	**127P**	Propylene oxide
1281	**129**	Propyl formates
1282	**129**	Pyridine
1286	**127**	Rosin oil
1287	**127**	Rubber solution
1288	**128**	Shale oil
1289	**132**	Sodium methylate, alcohol mixture
1289	**132**	Sodium methylate, solution in alcohol
1292	**132**	Ethyl silicate
1292	**132**	Tetraethyl silicate
1293	**127**	Tinctures, medicinal
1294	**130**	Toluene
1295	**139**	Trichlorosilane
1296	**132**	Triethylamine
1297	**132**	Trimethylamine, aqueous solution
1298	**155**	Trimethylchlorosilane
1299	**128**	Turpentine
1300	**128**	Turpentine substitute
1301	**129P**	Vinyl acetate
1301	**129P**	Vinyl acetate, inhibited
1302	**127P**	Vinyl ethyl ether
1302	**127P**	Vinyl ethyl ether, inhibited
1303	**129P**	Vinylidene chloride, inhibited
1304	**127P**	Vinyl isobutyl ether
1304	**127P**	Vinyl isobutyl ether, inhibited
1305	**155**	Vinyltrichlorosilane
1305	**155**	Vinyltrichlorosilane, inhibited
1306	**129**	Wood preservatives, liquid
1307	**130**	Xylenes
1308	**170**	Zirconium metal, liquid, suspension
1308	**170**	Zirconium suspended in a flammable liquid
1308	**170**	Zirconium suspended in a liquid (flammable)
1309	**170**	Aluminum powder, coated
1310	**113**	Ammonium picrate, wetted with not less than 10% water
1312	**133**	Borneol
1313	**133**	Calcium resinate
1314	**133**	Calcium resinate, fused
1318	**133**	Cobalt resinate, precipitated
1320	**113**	Dinitrophenol, wetted with not less than 15% water
1321	**113**	Dinitrophenolates, wetted with not less than 15% water
1322	**113**	Dinitroresorcinol, wetted with not less than 15% water
1323	**170**	Ferrocerium
1324	**133**	Film

ID No.	Guide No.	Name of Material
1324	**133**	Films, nitrocellulose base
1325	**133**	Air bag inflators
1325	**133**	Air bag modules
1325	**133**	Antimony sulfide, solid
1325	**133**	Antimony sulphide, solid
1325	**133**	Burnt cotton, not picked
1325	**133**	Cosmetics, n.o.s.
1325	**133**	Drugs, n.o.s.
1325	**133**	Flammable solid, n.o.s.
1325	**133**	Flammable solid, organic, n.o.s.
1325	**133**	Fusee (rail or highway)
1325	**133**	Medicines, flammable, solid, n.o.s.
1325	**133**	N-Methyl-N'-Nitro-N-Nitrosoguanidine
1325	**133**	Pyroxylin plastic, rod, sheet, roll, tube or scrap
1325	**133**	Smokeless powder for small arms
1326	**170**	Hafnium powder, wetted with not less than 25% water
1327	**133**	Bhusa, wet, damp or contaminated with oil
1327	**133**	Hay, wet, damp or contaminated with oil
1327	**133**	Straw, wet, damp or contaminated with oil
1328	**133**	Hexamethylenetetramine
1328	**133**	Hexamine
1330	**133**	Manganese resinate
1331	**133**	Matches, "strike anywhere"
1332	**133**	Metaldehyde
1333	**170**	Cerium, slabs, ingots or rods
1334	**133**	Naphthalene, crude
1334	**133**	Naphthalene, refined

ID No.	Guide No.	Name of Material
1336	**113**	Nitroguanidine (Picrite), wetted with not less than 20% water
1336	**113**	Nitroguanidine, wetted with not less than 20% water
1336	**113**	Picrite, wetted
1337	**113**	Nitrostarch, wet, with not less than 30% alcohol or solvent
1337	**113**	Nitrostarch, wetted with not less than 20% water
1337	**113**	Nitrostarch, wetted with not less than 30% solvent
1338	**133**	Phosphorus, amorphous
1338	**133**	Phosphorus, amorphous, red
1338	**133**	Red phosphorus
1338	**133**	Red phosphorus, amorphous
1339	**139**	Phosphorus heptasulfide, free from yellow and white Phosphorus
1339	**139**	Phosphorus heptasulphide, free from yellow and white Phosphorus
1340	**139**	Phosphorus pentasulfide, free from yellow and white Phosphorus
1340	**139**	Phosphorus pentasulphide, free from yellow and white Phosphorus
1341	**139**	Phosphorus sesquisulfide, free from yellow and white Phosphorus
1341	**139**	Phosphorus sesquisulphide, free from yellow and white Phosphorus
1343	**139**	Phosphorus trisulfide, free from yellow and white Phosphorus
1343	**139**	Phosphorus trisulphide, free from yellow and white Phosphorus

ID No.	Guide No.	Name of Material
1344	**113**	Picric acid, wet, with not less than 10% water
1344	**113**	Trinitrophenol, wetted with not less than 30% water
1345	**133**	Rubber scrap, powdered or granulated
1345	**133**	Rubber shoddy, powdered or granulated
1346	**170**	Silicon powder, amorphous
1347	**113**	Silver picrate, wetted with not less than 30% water
1348	**113**	Sodium dinitro-o-cresolate, wetted with not less than 15% water
1348	**113**	Sodium dinitro-ortho-cresolate, wetted
1349	**113**	Sodium picramate, wetted with not less than 20% water
1350	**133**	Sulfur
1350	**133**	Sulphur
1352	**170**	Titanium powder, wetted with not less than 25% water
1353	**133**	Fabrics impregnated with weakly nitrated Nitrocellulose, n.o.s.
1353	**133**	Fibers impregnated with weakly nitrated Nitrocellulose, n.o.s.
1353	**133**	Fibres impregnated with weakly nitrated Nitrocellulose, n.o.s.
1353	**133**	Toe puffs, nitrocellulose base
1354	**113**	Trinitrobenzene, wetted with not less than 30% water
1355	**113**	Trinitrobenzoic acid, wetted with not less than 30% water
1356	**113**	TNT, wetted with not less than 30% water
1356	**113**	Trinitrotoluene, wetted with not less than 30% water
1357	**113**	Urea nitrate, wetted with not less than 20% water
1358	**170**	Zirconium metal, powder, wet
1358	**170**	Zirconium powder, wetted with not less than 25% water
1360	**139**	Calcium phosphide
1361	**133**	Carbon, animal or vegetable origin
1361	**133**	Charcoal
1361	**133**	Charcoal, briquettes
1361	**133**	Charcoal, shell
1361	**133**	Charcoal, wood, ground, crushed, granulated or pulverized
1361	**133**	Charcoal screenings, made from "Pinon" wood
1361	**133**	Charcoal screenings, other than "Pinon" wood screenings
1362	**133**	Carbon, activated
1363	**135**	Copra
1364	**133**	Cotton waste, oily
1365	**133**	Cotton
1365	**133**	Cotton, wet
1366	**135**	Diethylzinc
1369	**135**	p-Nitrosodimethylaniline
1370	**135**	Dimethylzinc
1372	**133**	Fiber, animal or vegetable, n.o.s., burnt, wet or damp
1372	**133**	Fibers
1373	**133**	Fabrics, animal, synthetic or vegetable, n.o.s., with oil
1373	**133**	Fiber, animal, synthetic or vegetable, n.o.s., with oil
1373	**133**	Fibres, animal, synthetic or vegetable, n.o.s., with oil
1374	**133**	Fish meal, unstabilized

ID No.	Guide No.	Name of Material
1374	**133**	Fish meal containing less than 6% or more than 12% water
1374	**133**	Fish scrap, unstabilized
1374	**133**	Fish scrap containing less than 6% or more than 12% water
1376	**135**	Iron oxide, spent
1376	**135**	Iron sponge, spent
1378	**170**	Metal catalyst, wetted
1379	**133**	Paper, unsaturated oil treated
1380	**135**	Pentaborane
1381	**136**	Phosphorus, white, dry or under water or in solution
1381	**136**	Phosphorus, yellow, dry or under water or in solution
1381	**136**	White phosphorus, dry
1381	**136**	White phosphorus, in solution
1381	**136**	White phosphorus, under water
1381	**136**	Yellow phosphorus, dry
1381	**136**	Yellow phosphorus, in solution
1381	**136**	Yellow phosphorus, under water
1382	**135**	Potassium sulfide, anhydrous
1382	**135**	Potassium sulfide, with less than 30% water of crystallization
1382	**135**	Potassium sulfide, with less than 30% water of hydration
1382	**135**	Potassium sulphide, anhydrous
1382	**135**	Potassium sulphide, with less than 30% water of crystallization
1382	**135**	Potassium sulphide, with less than 30% water of hydration
1383	**135**	Aluminum powder, pyrophoric
1383	**135**	Pyrophoric alloy, n.o.s.
1383	**135**	Pyrophoric metal, n.o.s.
1384	**135**	Sodium dithionite
1384	**135**	Sodium hydrosulfite
1384	**135**	Sodium hydrosulphite
1385	**135**	Sodium sulfide, anhydrous
1385	**135**	Sodium sulfide, with less than 30% water of crystallization
1385	**135**	Sodium sulphide, anhydrous
1385	**135**	Sodium sulphide, with less than 30% water of crystallization
1386	**135**	Seed cake, with more than 1.5% oil and not more than 11% moisture
1389	**138**	Alkali metal amalgam
1389	**138**	Alkali metal amalgam, liquid
1389	**138**	Alkali metal amalgam, solid
1390	**139**	Alkali metal amides
1391	**138**	Alkali metal dispersion
1391	**138**	Alkaline earth metal dispersion
1392	**138**	Alkaline earth metal amalgam
1393	**138**	Alkaline earth metal alloy, n.o.s.
1394	**138**	Aluminum carbide
1395	**139**	Aluminum ferrosilicon powder
1396	**138**	Aluminum powder, uncoated
1397	**139**	Aluminum phosphide
1398	**138**	Aluminum silicon powder, uncoated
1400	**138**	Barium
1401	**138**	Calcium
1401	**138**	Calcium metal, crystalline
1402	**138**	Calcium carbide
1403	**138**	Calcium cyanamide, with more than 0.1% Calcium carbide
1404	**138**	Calcium hydride
1405	**138**	Calcium silicide
1406	**138**	Calcium silicon

ID No.	Guide No.	Name of Material
1407	**138**	Caesium
1407	**138**	Cesium
1408	**139**	Ferrosilicon
1409	**138**	Hydrides, metal, n.o.s.
1409	**138**	Metal hydrides, water-reactive, n.o.s.
1410	**138**	Lithium aluminum hydride
1411	**138**	Lithium aluminum hydride, ethereal
1412	**139**	Lithium amide
1413	**138**	Lithium borohydride
1414	**138**	Lithium hydride
1415	**138**	Lithium
1417	**138**	Lithium silicon
1418	**138**	Magnesium alloys powder
1418	**138**	Magnesium powder
1419	**139**	Magnesium aluminum phosphide
1420	**138**	Potassium, metal alloys
1420	**138**	Potassium, metal liquid alloy
1421	**138**	Alkali metal alloy, liquid, n.o.s.
1422	**138**	Potassium sodium alloys
1422	**138**	Sodium potassium alloys
1423	**138**	Rubidium
1423	**138**	Rubidium metal
1426	**138**	Sodium borohydride
1427	**138**	Sodium hydride
1428	**138**	Sodium
1431	**138**	Sodium methylate
1431	**138**	Sodium methylate, dry
1432	**139**	Sodium phosphide
1433	**139**	Stannic phosphides
1435	**138**	Zinc ashes
1435	**138**	Zinc dross

ID No.	Guide No.	Name of Material
1435	**138**	Zinc residue
1435	**138**	Zinc skimmings
1436	**138**	Zinc dust
1436	**138**	Zinc powder
1437	**138**	Zirconium hydride
1438	**140**	Aluminum nitrate
1439	**141**	Ammonium dichromate
1442	**143**	Ammonium perchlorate
1444	**140**	Ammonium persulfate
1444	**140**	Ammonium persulphate
1445	**141**	Barium chlorate
1445	**141**	Barium chlorate, wet
1446	**141**	Barium nitrate
1447	**141**	Barium perchlorate
1448	**141**	Barium permanganate
1449	**141**	Barium peroxide
1450	**141**	Bromates, inorganic, n.o.s.
1451	**140**	Caesium nitrate
1451	**140**	Cesium nitrate
1452	**140**	Calcium chlorate
1453	**140**	Calcium chlorite
1454	**140**	Calcium nitrate
1455	**140**	Calcium perchlorate
1456	**140**	Calcium permanganate
1457	**140**	Calcium peroxide
1458	**140**	Borate and Chlorate mixtures
1458	**140**	Chlorate and Borate mixtures
1459	**140**	Chlorate and Magnesium chloride mixture
1459	**140**	Magnesium chloride and Chlorate mixture
1461	**140**	Chlorate, n.o.s., wet
1461	**140**	Chlorates, inorganic, n.o.s.

ID No.	Guide No.	Name of Material
1462	**143**	Chlorites, inorganic, n.o.s.
1463	**141**	Chromic acid, solid
1463	**141**	Chromic acid mixture, dry
1463	**141**	Chromium trioxide, anhydrous
1465	**140**	Didymium nitrate
1466	**140**	Ferric nitrate
1467	**143**	Guanidine nitrate
1469	**141**	Lead nitrate
1470	**141**	Lead perchlorate
1470	**141**	Lead perchlorate, solid
1470	**141**	Lead perchlorate, solution
1471	**140**	Lithium hypochlorite, dry
1471	**140**	Lithium hypochlorite mixture
1471	**140**	Lithium hypochlorite mixtures, dry
1472	**143**	Lithium peroxide
1473	**140**	Magnesium bromate
1474	**140**	Magnesium nitrate
1475	**140**	Magnesium perchlorate
1476	**140**	Magnesium peroxide
1477	**140**	Ammonium sulfate nitrate
1477	**140**	Ammonium sulphate nitrate
1477	**140**	Nitrate, n.o.s.
1477	**140**	Nitrates, inorganic, n.o.s.
1479	**140**	Compound, tree or weed killing, solid (oxidizer)
1479	**140**	Cosmetics, n.o.s.
1479	**140**	Drugs, n.o.s.
1479	**140**	Medicines, oxidizing substances, solid, n.o.s.
1479	**140**	Oxidizing solid, n.o.s.
1479	**140**	Oxidizing substances, solid, n.o.s.
1481	**140**	Perchlorate, n.o.s.

ID No.	Guide No.	Name of Material
1481	**140**	Perchlorates, inorganic, n.o.s.
1482	**140**	Permanganate, n.o.s.
1482	**140**	Permanganates, inorganic, n.o.s.
1483	**140**	Peroxides, inorganic, n.o.s.
1484	**140**	Potassium bromate
1485	**140**	Potassium chlorate
1486	**140**	Potassium nitrate
1487	**140**	Potassium nitrate and Sodium nitrite mixture
1487	**140**	Sodium nitrite and Potassium nitrate mixtures
1487	**140**	Sodium nitrite mixture
1488	**140**	Potassium nitrite
1489	**140**	Potassium perchlorate
1490	**140**	Potassium permanganate
1491	**144**	Potassium peroxide
1492	**140**	Potassium persulfate
1492	**140**	Potassium persulphate
1493	**140**	Silver nitrate
1494	**141**	Sodium bromate
1495	**140**	Sodium chlorate
1496	**143**	Sodium chlorite
1498	**140**	Sodium nitrate
1499	**140**	Potassium nitrate and Sodium nitrate mixture
1499	**140**	Sodium nitrate and Potassium nitrate mixture
1500	**140**	Sodium nitrite
1502	**140**	Sodium perchlorate
1503	**140**	Sodium permanganate
1504	**144**	Sodium peroxide
1505	**140**	Sodium persulfate
1505	**140**	Sodium persulphate

ID No.	Guide No.	Name of Material
1506	**143**	Strontium chlorate
1506	**143**	Strontium chlorate, solid
1506	**143**	Strontium chlorate, solution
1507	**140**	Strontium nitrate
1508	**140**	Strontium perchlorate
1509	**143**	Strontium peroxide
1510	**143**	Tetranitromethane
1511	**140**	Urea hydrogen peroxide
1511	**140**	Urea peroxide
1512	**140**	Zinc ammonium nitrite
1513	**140**	Zinc chlorate
1514	**140**	Zinc nitrate
1515	**140**	Zinc permanganate
1516	**143**	Zinc peroxide
1517	**113**	Zirconium picramate, wetted with not less than 20% water
1541	**155**	Acetone cyanohydrin, stabilized
1544	**151**	Alkaloids, solid, n.o.s. (poisonous)
1544	**151**	Alkaloid salts, solid, n.o.s. (poisonous)
1545	**155**	Allyl isothiocyanate, inhibited
1545	**155**	Allyl isothiocyanate, stabilized
1546	**151**	Ammonium arsenate
1547	**153**	Aniline
1548	**153**	Aniline hydrochloride
1549	**157**	Antimony compound, inorganic, n.o.s.
1549	**157**	Antimony compound, inorganic, solid, n.o.s.
1549	**157**	Antimony tribromide, solid
1549	**157**	Antimony tribromide, solution
1549	**157**	Antimony trifluoride, solid
1549	**157**	Antimony trifluoride, solution

ID No.	Guide No.	Name of Material
1550	**151**	Antimony lactate
1551	**151**	Antimony potassium tartrate
1553	**154**	Arsenic acid, liquid
1554	**154**	Arsenic acid, solid
1555	**151**	Arsenic bromide
1556	**152**	Arsenic compound, liquid, n.o.s.
1556	**152**	Arsenic compound, liquid, n.o.s., inorganic
1556	**152**	MD
1556	**152**	Methyldichloroarsine
1556	**152**	PD
1556	**152**	Phenyldichloroarsine
1557	**152**	Arsenic compound, solid, n.o.s.
1557	**152**	Arsenic compound, solid, n.o.s., inorganic
1557	**152**	Arsenic iodide, solid
1557	**152**	Arsenic sulfide
1557	**152**	Arsenic sulphide
1557	**152**	Arsenic trisulfide
1557	**152**	Arsenic trisulphide
1558	**152**	Arsenic
1559	**151**	Arsenic pentoxide
1560	**157**	Arsenic chloride
1560	**157**	Arsenic trichloride
1561	**151**	Arsenic trioxide
1562	**152**	Arsenical dust
1564	**154**	Barium compound, n.o.s.
1565	**157**	Barium cyanide
1566	**154**	Beryllium chloride
1566	**154**	Beryllium compound, n.o.s.
1566	**154**	Beryllium fluoride
1567	**134**	Beryllium powder
1569	**131**	Bromoacetone

ID No.	Guide No.	Name of Material
1570	**152**	Brucine
1571	**113**	Barium azide, wetted with not less than 50% water
1572	**151**	Cacodylic acid
1573	**151**	Calcium arsenate
1574	**151**	Calcium arsenate and Calcium arsenite mixture, solid
1574	**151**	Calcium arsenite, solid
1574	**151**	Calcium arsenite and Calcium arsenate mixture, solid
1575	**157**	Calcium cyanide
1577	**153**	Chlorodinitrobenzenes
1577	**153**	Dinitrochlorobenzene
1578	**152**	Chloronitrobenzenes
1578	**152**	Chloronitrobenzenes, liquid
1578	**152**	Chloronitrobenzenes, solid
1578	**152**	Nitrochlorobenzenes, liquid
1578	**152**	Nitrochlorobenzenes, solid
1579	**153**	4-Chloro-o-toluidine hydrochloride
1580	**154**	Chloropicrin
1581	**123**	Chloropicrin and Methyl bromide mixture
1581	**123**	Methyl bromide and Chloropicrin mixtures
1581	**123**	Methyl bromide and more than 2% Chloropicrin mixture, liquid
1582	**119**	Chloropicrin and Methyl chloride mixture
1582	**119**	Methyl chloride and Chloropicrin mixtures
1583	**154**	Chloropicrin, absorbed
1583	**154**	Chloropicrin mixture, n.o.s.
1584	**151**	Cocculus
1585	**151**	Copper acetoarsenite
1586	**151**	Copper arsenite
1587	**151**	Copper cyanide
1588	**157**	Cyanides, inorganic, n.o.s.
1588	**157**	Cyanides, inorganic, solid, n.o.s.
1589	**125**	CK
1589	**125**	Cyanogen chloride, inhibited
1590	**153**	Dichloroanilines
1590	**153**	Dichloroanilines, liquid
1590	**153**	Dichloroanilines, solid
1591	**152**	o-Dichlorobenzene
1592	**152**	p-Dichlorobenzene
1593	**160**	Dichloromethane
1593	**160**	Methylene chloride
1594	**152**	Diethyl sulfate
1594	**152**	Diethyl sulphate
1595	**156**	Dimethyl sulfate
1595	**156**	Dimethyl sulphate
1596	**153**	Dinitroanilines
1597	**152**	Dinitrobenzenes
1598	**153**	Dinitro-o-cresol
1599	**153**	Dinitrophenol, solution
1600	**152**	Dinitrotoluenes, molten
1601	**151**	Disinfectant, solid, poisonous, n.o.s.
1601	**151**	Disinfectant, solid, toxic, n.o.s.
1601	**151**	Disinfectants, solid, n.o.s. (poisonous)
1602	**151**	Dye, liquid, poisonous, n.o.s.
1602	**151**	Dye, liquid, toxic, n.o.s.
1602	**151**	Dye intermediate, liquid, poisonous, n.o.s.
1602	**151**	Dye intermediate, liquid, toxic, n.o.s.

ID No.	Guide No.	Name of Material
1603	**155**	Ethyl bromoacetate
1604	**132**	Ethylenediamine
1605	**154**	Ethylene dibromide
1606	**151**	Ferric arsenate
1607	**151**	Ferric arsenite
1608	**151**	Ferrous arsenate
1610	**159**	Halogenated irritating liquid, n.o.s.
1611	**151**	Hexaethyl tetraphosphate
1611	**151**	Hexaethyl tetraphosphate, liquid
1611	**151**	Hexaethyl tetraphosphate, solid
1612	**123**	Hexaethyl tetraphosphate and compressed gas mixture
1613	**154**	Hydrocyanic acid, aqueous solution, with less than 5% Hydrogen cyanide
1613	**154**	Hydrocyanic acid, aqueous solution, with not more than 20% Hydrogen cyanide
1613	**154**	Hydrogen cyanide, aqueous solution, with not more than 20% Hydrogen cyanide
1614	**131**	Hydrogen cyanide, anhydrous, stabilized (absorbed)
1614	**131**	Hydrogen cyanide, stabilized (absorbed)
1616	**151**	Lead acetate
1617	**151**	Lead arsenates
1618	**151**	Lead arsenites
1620	**151**	Lead cyanide
1621	**151**	London purple
1622	**151**	Magnesium arsenate
1623	**151**	Mercuric arsenate
1624	**154**	Mercuric chloride
1625	**141**	Mercuric nitrate
1626	**157**	Mercuric potassium cyanide

ID No.	Guide No.	Name of Material
1627	**141**	Mercurous nitrate
1628	**151**	Mercurous sulfate
1628	**151**	Mercurous sulphate
1629	**151**	Mercury acetate
1630	**151**	Mercury ammonium chloride
1631	**154**	Mercury benzoate
1633	**151**	Mercury bisulfate
1633	**151**	Mercury bisulphate
1634	**154**	Mercuric bromide
1634	**154**	Mercurous bromide
1634	**154**	Mercury bromides
1636	**154**	Mercuric cyanide
1636	**154**	Mercury cyanide
1637	**151**	Mercury gluconate
1638	**151**	Mercury iodide
1639	**151**	Mercury nucleate
1640	**151**	Mercury oleate
1641	**151**	Mercury oxide
1642	**151**	Mercuric oxycyanide
1642	**151**	Mercury oxycyanide, desensitized
1643	**151**	Mercury potassium iodide
1644	**151**	Mercury salicylate
1645	**151**	Mercuric sulfate
1645	**151**	Mercuric sulphate
1645	**151**	Mercury sulfate
1645	**151**	Mercury sulphate
1646	**151**	Mercury thiocyanate
1647	**151**	Ethylene dibromide and Methyl bromide mixture, liquid
1647	**151**	Methyl bromide and Ethylene dibromide mixture, liquid
1648	**131**	Acetonitrile
1648	**131**	Methyl cyanide

ID No.	Guide No.	Name of Material
1649	**131**	Motor fuel anti-knock compound
1649	**131**	Motor fuel anti-knock mixture
1649	**131**	Tetraethyl lead, liquid
1650	**153**	beta-Naphthylamine
1650	**153**	Naphthylamine (beta)
1651	**153**	Naphthylthiourea
1652	**153**	Naphthylurea
1653	**151**	Nickel cyanide
1654	**151**	Nicotine
1655	**151**	Nicotine compound, solid, n.o.s.
1655	**151**	Nicotine preparation, solid, n.o.s.
1656	**151**	Nicotine hydrochloride
1656	**151**	Nicotine hydrochloride, solution
1657	**151**	Nicotine salicylate
1658	**151**	Nicotine sulfate, solid
1658	**151**	Nicotine sulfate, solution
1658	**151**	Nicotine sulphate, solid
1658	**151**	Nicotine sulphate, solution
1659	**151**	Nicotine tartrate
1660	**124**	Nitric oxide
1660	**124**	Nitric oxide, compressed
1661	**153**	Nitroanilines
1662	**152**	Nitrobenzene
1663	**153**	Nitrophenols
1664	**152**	Nitrotoluenes
1664	**152**	Nitrotoluenes, liquid
1664	**152**	Nitrotoluenes, solid
1665	**152**	Nitroxylenes
1665	**152**	Nitroxylol
1669	**151**	Pentachloroethane
1670	**157**	Perchloromethyl mercaptan
1671	**153**	Phenol, solid
1672	**151**	Phenylcarbylamine chloride

ID No.	Guide No.	Name of Material
1673	**153**	Phenylenediamines
1674	**151**	Phenylmercuric acetate
1677	**151**	Potassium arsenate
1678	**154**	Potassium arsenite
1679	**157**	Potassium cuprocyanide
1680	**157**	Potassium cyanide
1683	**151**	Silver arsenite
1684	**151**	Silver cyanide
1685	**151**	Sodium arsenate
1686	**154**	Sodium arsenite, aqueous solution
1687	**153**	Sodium azide
1688	**152**	Sodium cacodylate
1689	**157**	Sodium cyanide
1690	**154**	Sodium fluoride
1690	**154**	Sodium fluoride, solid
1690	**154**	Sodium fluoride, solution
1691	**151**	Strontium arsenite
1692	**151**	Strychnine
1692	**151**	Strychnine salts
1693	**159**	Irritating agent, n.o.s.
1693	**159**	ORM-A, n.o.s.
1693	**159**	Tear gas devices
1693	**159**	Tear gas substance, liquid, n.o.s.
1693	**159**	Tear gas substance, solid, n.o.s.
1694	**159**	Bromobenzyl cyanides
1694	**159**	CA
1695	**131**	Chloroacetone, stabilized
1697	**153**	Chloroacetophenone
1697	**153**	Chloroacetophenone, liquid
1697	**153**	Chloroacetophenone, solid
1697	**153**	CN
1698	**154**	Adamsite

ID No.	Guide No.	Name of Material
1698	**154**	Diphenylamine chloroarsine
1698	**154**	DM
1699	**151**	DA
1699	**151**	Diphenylchloroarsine
1699	**151**	Diphenylchloroarsine, liquid
1699	**151**	Diphenylchloroarsine, solid
1700	**159**	Tear gas candles
1700	**159**	Tear gas grenades
1701	**152**	Xylyl bromide
1702	**151**	1,1,2,2-Tetrachloroethane
1702	**151**	Tetrachloroethane
1703	**123**	Tetraethyl dithiopyrophosphate and gases, in solution
1703	**123**	Tetraethyl dithiopyrophosphate and gases, mixtures
1703	**123**	Tetraethyl dithiopyrophosphate and gases, mixtures, or in solution (LC50 more than 200 ppm but not more than 5000 ppm)
1703	**123**	Tetraethyl dithiopyrophosphate and gases, mixtures, or in solution (LC50 not more than 200 ppm)
1704	**153**	Tetraethyl dithiopyrophosphate
1704	**153**	Tetraethyl dithiopyrophosphate, mixture, dry or liquid
1705	**123**	Tetraethyl pyrophosphate and compressed gas mixtures
1705	**123**	Tetraethyl pyrophosphate and compressed gas mixtures (LC50 more than 200 ppm but not more than 5000 ppm)
1705	**123**	Tetraethyl pyrophosphate and compressed gas mixtures (LC50 not more than 200 ppm)
1707	**151**	Thallium compound, n.o.s.

ID No.	Guide No.	Name of Material
1707	**151**	Thallium sulfate, solid
1707	**151**	Thallium sulphate, solid
1708	**153**	Toluidines
1708	**153**	Toluidines, liquid
1708	**153**	Toluidines, solid
1709	**151**	2,4-Toluenediamine
1709	**151**	Toluenediamine
1709	**151**	2,4-Toluylenediamine
1710	**160**	Trichloroethylene
1711	**153**	Xylidines
1712	**151**	Zinc arsenate
1712	**151**	Zinc arsenate and Zinc arsenite mixture
1712	**151**	Zinc arsenite
1712	**151**	Zinc arsenite and Zinc arsenate mixture
1713	**151**	Zinc cyanide
1714	**139**	Zinc phosphide
1715	**137**	Acetic anhydride
1716	**156**	Acetyl bromide
1717	**132**	Acetyl chloride
1718	**153**	Acid butyl phosphate
1718	**153**	Butyl acid phosphate
1719	**154**	Alkaline liquid, n.o.s.
1719	**154**	Caustic alkali liquid, n.o.s.
1722	**155**	Allyl chlorocarbonate
1722	**155**	Allyl chloroformate
1723	**132**	Allyl iodide
1724	**155**	Allyltrichlorosilane, stabilized
1725	**137**	Aluminum bromide, anhydrous
1726	**137**	Aluminum chloride, anhydrous
1727	**154**	Ammonium bifluoride, solid
1727	**154**	Ammonium hydrogendifluoride, solid

ID No.	Guide No.	Name of Material
1727	**154**	Ammonium hydrogen fluoride, solid
1728	**155**	Amyltrichlorosilane
1729	**156**	Anisoyl chloride
1730	**157**	Antimony pentachloride, liquid
1731	**157**	Antimony pentachloride, solution
1732	**157**	Antimony pentafluoride
1733	**157**	Antimony trichloride
1733	**157**	Antimony trichloride, liquid
1733	**157**	Antimony trichloride, solid
1733	**157**	Antimony trichloride, solution
1736	**137**	Benzoyl chloride
1737	**156**	Benzyl bromide
1738	**156**	Benzyl chloride
1739	**137**	Benzyl chloroformate
1740	**154**	Bifluorides, n.o.s.
1740	**154**	Hydrogendifluorides, n.o.s.
1741	**125**	Boron trichloride
1742	**157**	Boron trifluoride acetic acid complex
1743	**157**	Boron trifluoride propionic acid complex
1744	**154**	Bromine
1744	**154**	Bromine, solution
1745	**144**	Bromine pentafluoride
1746	**144**	Bromine trifluoride
1747	**155**	Butyltrichlorosilane
1748	**140**	Calcium hypochlorite, dry
1748	**140**	Calcium hypochlorite mixture, dry, with more than 39% available Chlorine (8.8% available Oxygen)
1749	**124**	Chlorine trifluoride
1750	**153**	Chloroacetic acid, liquid
1750	**153**	Chloroacetic acid, solution
1751	**153**	Chloroacetic acid, solid
1752	**156**	Chloroacetyl chloride
1753	**156**	Chlorophenyltrichlorosilane
1754	**137**	Chlorosulfonic acid
1754	**137**	Chlorosulfonic acid and Sulfur trioxide mixture
1754	**137**	Chlorosulphonic acid
1754	**137**	Chlorosulphonic acid and Sulphur trioxide mixture
1754	**137**	Sulfur trioxide and Chlorosulfonic acid mixture
1754	**137**	Sulphur trioxide and Chlorosulphonic acid mixture
1755	**154**	Chromic acid, solution
1756	**154**	Chromic fluoride, solid
1757	**154**	Chromic fluoride, solution
1758	**137**	Chromium oxychloride
1759	**154**	Corrosive solid, n.o.s.
1759	**154**	Cosmetics, solid, n.o.s.
1759	**154**	Drugs, solid, n.o.s.
1759	**154**	Ferrous chloride, solid
1759	**154**	Medicines, corrosive, solid, n.o.s.
1759	**154**	Stannous chloride, solid
1760	**154**	Acid, liquid, n.o.s.
1760	**154**	Aluminum phosphate, solution
1760	**154**	Aluminum sulfate, solution
1760	**154**	Aluminum sulphate, solution
1760	**154**	2-(2-Aminoethoxy)ethanol
1760	**154**	Aminopropyldiethanolamine
1760	**154**	N-Aminopropylmorpholine
1760	**154**	Chemical kit
1760	**154**	Compound, rust preventing (corrosive)

ID No.	Guide No.	Name of Material
1760	**154**	Compound, rust removing (corrosive)
1760	**154**	Compound, tree or weed killing, liquid (corrosive)
1760	**154**	Compound, vulcanizing, liquid (corrosive)
1760	**154**	Compounds, cleaning, liquid (corrosive)
1760	**154**	Corrosive liquid, n.o.s.
1760	**154**	Cosmetics, liquid, n.o.s.
1760	**154**	2,2-Dichloropropionic acid
1760	**154**	Drugs, liquid, n.o.s.
1760	**154**	Ferrous chloride, solution
1760	**154**	Flame retardant compound, liquid (corrosive)
1760	**154**	Hexanoic acid
1760	**154**	Isopentanoic acid
1760	**154**	Medicines, corrosive, liquid, n.o.s.
1760	**154**	Morpholine, aqueous mixture
1760	**154**	Nitric acid, 40% or less
1760	**154**	ORM-B, n.o.s.
1760	**154**	Paint (corrosive)
1760	**154**	Paint related material (corrosive)
1760	**154**	Textile treating compound or mixture, liquid (corrosive)
1760	**154**	Titanium sulfate, solution
1760	**154**	Titanium sulphate, solution
1761	**154**	Cupriethylenediamine, solution
1762	**156**	Cyclohexenyltrichlorosilane
1763	**156**	Cyclohexyltrichlorosilane
1764	**153**	Dichloroacetic acid
1765	**156**	Dichloroacetyl chloride
1766	**156**	Dichlorophenyltrichlorosilane
1767	**155**	Diethyldichlorosilane
1768	**154**	Difluorophosphoric acid, anhydrous
1769	**156**	Diphenyldichlorosilane
1770	**153**	Diphenylmethyl bromide
1771	**156**	Dodecyltrichlorosilane
1773	**157**	Ferric chloride
1773	**157**	Ferric chloride, anhydrous
1774	**154**	Fire extinguisher charges, corrosive liquid
1775	**154**	Fluoboric acid
1775	**154**	Fluoroboric acid
1776	**154**	Fluorophosphoric acid, anhydrous
1777	**137**	Fluorosulfonic acid
1777	**137**	Fluorosulphonic acid
1778	**154**	Fluorosilicic acid
1778	**154**	Fluosilicic acid
1778	**154**	Hydrofluorosilicic acid
1778	**154**	Hydrofluosilicic acid
1779	**153**	Formic acid
1780	**156**	Fumaryl chloride
1781	**156**	Hexadecyltrichlorosilane
1782	**154**	Hexafluorophosphoric acid
1783	**153**	Hexamethylenediamine, solution
1784	**156**	Hexyltrichlorosilane
1786	**157**	Hydrofluoric acid and Sulfuric acid mixture
1786	**157**	Hydrofluoric acid and Sulphuric acid mixture
1786	**157**	Sulfuric acid and Hydrofluoric acid mixtures
1786	**157**	Sulphuric acid and Hydrofluoric acid mixtures
1787	**154**	Hydriodic acid

ID No.	Guide No.	Name of Material
1787	**154**	Hydriodic acid, solution
1788	**154**	Hydrobromic acid
1788	**154**	Hydrobromic acid, solution
1789	**157**	Compound, cleaning liquid (containing Hydrochloric (muriatic) acid)
1789	**157**	Hydrochloric acid
1789	**157**	Hydrochloric acid, mixture
1789	**157**	Hydrochloric acid, solution
1789	**157**	Muriatic acid
1790	**157**	Compound, cleaning liquid (containing Hydrofluoric acid)
1790	**157**	Etching acid, liquid, n.o.s.
1790	**157**	Hydrofluoric acid
1790	**157**	Hydrofluoric acid, solution
1791	**154**	Hypochlorite solution
1791	**154**	Hypochlorite solution, with more than 5% available Chlorine
1792	**157**	Iodine monochloride
1793	**153**	Isopropyl acid phosphate
1794	**154**	Lead sulfate, with more than 3% free acid
1794	**154**	Lead sulphate, with more than 3% free acid
1796	**157**	Nitrating acid mixture
1798	**157**	Aqua regia
1798	**157**	Nitrohydrochloric acid
1799	**156**	Nonyltrichlorosilane
1800	**156**	Octadecyltrichlorosilane
1801	**156**	Octyltrichlorosilane
1802	**140**	Perchloric acid, with not more than 50% acid
1803	**153**	Phenolsulfonic acid, liquid
1803	**153**	Phenolsulphonic acid, liquid
1804	**156**	Phenyltrichlorosilane

ID No.	Guide No.	Name of Material
1805	**154**	Phosphoric acid
1806	**137**	Phosphorus pentachloride
1807	**137**	Phosphoric anhydride
1807	**137**	Phosphorus pentoxide
1808	**137**	Phosphorus tribromide
1809	**137**	Phosphorus trichloride
1810	**137**	Phosphorus oxychloride
1811	**154**	Potassium bifluoride
1811	**154**	Potassium hydrogendifluoride
1811	**154**	Potassium hydrogen fluoride, solution
1812	**154**	Potassium fluoride
1813	**154**	Battery
1813	**154**	Caustic potash, dry, solid
1813	**154**	Potassium hydroxide, dry, solid
1813	**154**	Potassium hydroxide, flake
1813	**154**	Potassium hydroxide, solid
1814	**154**	Caustic potash, liquid
1814	**154**	Caustic potash, solution
1814	**154**	Potassium hydroxide, solution
1815	**132**	Propionyl chloride
1816	**155**	Propyltrichlorosilane
1817	**137**	Pyrosulfuryl chloride
1817	**137**	Pyrosulphuryl chloride
1818	**157**	Silicon tetrachloride
1819	**154**	Sodium aluminate, solution
1821	**154**	Sodium bisulfate, solid
1821	**154**	Sodium bisulphate, solid
1821	**154**	Sodium hydrogen sulfate, solid
1821	**154**	Sodium hydrogen sulphate, solid
1823	**154**	Caustic soda, bead
1823	**154**	Caustic soda, flake
1823	**154**	Caustic soda, granular

ID No.	Guide No.	Name of Material
1823	**154**	Caustic soda, solid
1823	**154**	Sodium hydroxide, dry
1823	**154**	Sodium hydroxide, bead
1823	**154**	Sodium hydroxide, flake
1823	**154**	Sodium hydroxide, granular
1823	**154**	Sodium hydroxide, solid
1824	**154**	Caustic soda, solution
1824	**154**	Sodium hydroxide, solution
1825	**157**	Sodium monoxide
1826	**157**	Nitrating acid, spent
1826	**157**	Nitrating acid mixture, spent
1827	**137**	Stannic chloride, anhydrous
1827	**137**	Tin tetrachloride
1828	**137**	Sulfur chlorides
1828	**137**	Sulphur chlorides
1829	**137**	Sulfur trioxide
1829	**137**	Sulfur trioxide, inhibited
1829	**137**	Sulfur trioxide, stabilized
1829	**137**	Sulfur trioxide, uninhibited
1829	**137**	Sulphur trioxide
1829	**137**	Sulphur trioxide, inhibited
1829	**137**	Sulphur trioxide, stabilized
1829	**137**	Sulphur trioxide, uninhibited
1830	**137**	Sulfuric acid
1830	**137**	Sulfuric acid, with more than 51% acid
1830	**137**	Sulphuric acid
1830	**137**	Sulphuric acid, with more than 51% acid
1831	**137**	Oleum
1831	**137**	Oleum, with less than 30% free Sulfur trioxide
1831	**137**	Oleum, with less than 30% free Sulphur trioxide
1831	**137**	Oleum, with not less than 30% free Sulfur trioxide
1831	**137**	Oleum, with not less than 30% free Sulphur trioxide
1831	**137**	Sulfuric acid, fuming
1831	**137**	Sulfuric acid, fuming, with less than 30% free Sulfur trioxide
1831	**137**	Sulfuric acid, fuming, with not less than 30% free Sulfur trioxide
1831	**137**	Sulphuric acid, fuming
1831	**137**	Sulphuric acid, fuming, with less than 30% free Sulphur trioxide
1831	**137**	Sulphuric acid, fuming, with not less than 30% free Sulphur trioxide
1832	**137**	Sulfuric acid, spent
1832	**137**	Sulphuric acid, spent
1833	**154**	Sulfurous acid
1833	**154**	Sulphurous acid
1834	**137**	Sulfuryl chloride
1834	**137**	Sulphuryl chloride
1835	**153**	Tetramethylammonium hydroxide
1836	**137**	Thionyl chloride
1837	**157**	Thiophosphoryl chloride
1838	**137**	Titanium tetrachloride
1839	**153**	Trichloroacetic acid
1840	**154**	Zinc chloride, solution
1841	**171**	Acetaldehyde ammonia
1843	**141**	Ammonium dinitro-o-cresolate
1845	**120**	Carbon dioxide, solid
1845	**120**	Dry ice
1846	**151**	Carbon tetrachloride

ID No.	Guide No.	Name of Material
1847	**153**	Potassium sulfide, hydrated, with not less than 30% water of crystallization
1847	**153**	Potassium sulfide, hydrated, with not less than 30% water of hydration
1847	**153**	Potassium sulphide, hydrated, with not less than 30% water of crystallization
1847	**153**	Potassium sulphide, hydrated, with not less than 30% water of hydration
1848	**132**	Propionic acid
1849	**153**	Sodium sulfide, hydrated, with not less than 30% water
1849	**153**	Sodium sulphide, hydrated, with not less than 30% water
1851	**151**	Medicine, liquid, poisonous, n.o.s.
1851	**151**	Medicine, liquid, toxic, n.o.s.
1854	**135**	Barium alloys, pyrophoric
1855	**135**	Calcium, metal and alloys, pyrophoric
1855	**135**	Calcium, pyrophoric
1855	**135**	Calcium alloys, pyrophoric
1856	**133**	Rags, oily
1858	**126**	Hexafluoropropylene
1858	**126**	Refrigerant gas R-1216
1859	**125**	Silicon tetrafluoride
1859	**125**	Silicon tetrafluoride, compressed
1860	**116P**	Vinyl fluoride, inhibited
1862	**129**	Ethyl crotonate
1863	**128**	Fuel, aviation, turbine engine
1864	**128**	Gas drips, hydrocarbon
1865	**131**	n-Propyl nitrate
1866	**127**	Resin solution
1867	**133**	Cigarettes, self-lighting
1868	**134**	Decaborane
1869	**138**	Magnesium
1869	**138**	Magnesium, in pellets, turnings or ribbons
1869	**138**	Magnesium alloys, with more than 50% Magnesium, in pellets, turnings or ribbons
1869	**138**	Magnesium scrap
1870	**138**	Potassium borohydride
1871	**170**	Titanium hydride
1872	**141**	Lead dioxide
1872	**141**	Lead peroxide
1873	**143**	Perchloric acid, with more than 50% but not more than 72% acid
1884	**157**	Barium oxide
1885	**153**	Benzidine
1886	**156**	Benzylidene chloride
1887	**160**	Bromochloromethane
1888	**151**	Chloroform
1889	**157**	Cyanogen bromide
1891	**131**	Ethyl bromide
1892	**151**	ED
1892	**151**	Ethyldichloroarsine
1894	**151**	Phenylmercuric hydroxide
1895	**151**	Phenylmercuric nitrate
1897	**160**	Perchloroethylene
1897	**160**	Tetrachloroethylene
1898	**156**	Acetyl iodide
1902	**153**	Di-(2-ethylhexyl)phosphoric acid
1902	**153**	Diisooctyl acid phosphate
1903	**153**	Disinfectant, liquid, corrosive, n.o.s.

ID No.	Guide No.	Name of Material
1903	153	Disinfectants, corrosive, liquid, n.o.s.
1905	154	Selenic acid
1906	153	Acid, sludge
1906	153	Sludge acid
1907	154	Soda lime, with more than 4% Sodium hydroxide
1908	154	Chlorite solution
1908	154	Chlorite solution, with more than 5% available Chlorine
1908	154	Sodium chlorite, solution, with more than 5% available Chlorine
1910	157	Calcium oxide
1911	119	Diborane
1911	119	Diborane, compressed
1911	119	Diborane mixtures
1912	115	Methyl chloride and Methylene chloride mixture
1912	115	Methylene chloride and Methyl chloride mixture
1913	120	Neon, refrigerated liquid (cryogenic liquid)
1914	130	Butyl propionates
1915	127	Cyclohexanone
1916	152	2,2'-Dichlorodiethyl ether
1916	152	Dichloroethyl ether
1917	129P	Ethyl acrylate, inhibited
1918	130	Cumene
1918	130	Isopropylbenzene
1919	129P	Methyl acrylate, inhibited
1920	128	Nonanes
1921	131P	Propyleneimine, inhibited
1922	132	Pyrrolidine
1923	135	Calcium dithionite
1923	135	Calcium hydrosulfite
1923	135	Calcium hydrosulphite
1928	135	Methyl magnesium bromide in Ethyl ether
1929	135	Potassium dithionite
1929	135	Potassium hydrosulfite
1929	135	Potassium hydrosulphite
1931	171	Zinc dithionite
1931	171	Zinc hydrosulfite
1931	171	Zinc hydrosulphite
1932	135	Zirconium scrap
1935	157	Cyanide solution, n.o.s.
1938	156	Bromoacetic acid
1938	156	Bromoacetic acid, solid
1938	156	Bromoacetic acid, solution
1939	137	Phosphorus oxybromide
1939	137	Phosphorus oxybromide, solid
1940	153	Thioglycolic acid
1941	171	Dibromodifluoromethane
1942	140	Ammonium nitrate, with not more than 0.2% combustible substances
1942	140	Ammonium nitrate, with organic coating
1944	133	Matches, safety
1945	133	Matches, wax "vesta"
1950	126	Aerosol dispensers
1950	126	Aerosols
1951	120	Argon, refrigerated liquid (cryogenic liquid)
1952	126	Carbon dioxide and Ethylene oxide mixtures, with not more than 6% Ethylene oxide
1952	126	Carbon dioxide and Ethylene oxide mixtures, with not more than 9% Ethylene oxide

ID No.	Guide No.	Name of Material
1952	**126**	Ethylene oxide and Carbon dioxide mixtures, with not more than 6% Ethylene oxide
1952	**126**	Ethylene oxide and Carbon dioxide mixtures, with not more than 9% Ethylene oxide
1953	**119**	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone A)
1953	**119**	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone B)
1953	**119**	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone C)
1953	**119**	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone D)
1953	**119**	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone A)
1953	**119**	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone B)
1953	**119**	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone C)
1953	**119**	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone D)
1953	**119**	Compressed gas, poisonous, flammable, n.o.s.
1953	**119**	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)
1953	**119**	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)
1953	**119**	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)
1953	**119**	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)
1953	**119**	Compressed gas, toxic, flammable, n.o.s.
1953	**119**	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)
1953	**119**	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)
1953	**119**	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)
1953	**119**	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)
1953	**119**	Liquefied gas, flammable, poisonous, n.o.s.
1953	**119**	Liquefied gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone A)
1953	**119**	Liquefied gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone B)
1953	**119**	Liquefied gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone C)
1953	**119**	Liquefied gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone D)
1953	**119**	Liquefied gas, flammable, toxic, n.o.s.
1953	**119**	Liquefied gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone A)

ID No.	Guide No.	Name of Material
1953	**119**	Liquefied gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone B)
1953	**119**	Liquefied gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone C)
1953	**119**	Liquefied gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone D)
1953	**119**	Poisonous gas, flammable, n.o.s.
1953	**119**	Poisonous liquid, flammable, n.o.s.
1954	**115**	Compressed gas, flammable, n.o.s.
1954	**115**	Dispersant gas, n.o.s. (flammable)
1954	**115**	Insecticide gas, flammable, n.o.s.
1954	**115**	Liquefied gas, flammable, n.o.s.
1954	**115**	Refrigerant gas, n.o.s. (flammable)
1954	**115**	Refrigerating machines, containing flammable, liquefied gas
1954	**115**	Refrigerating machines, containing flammable, non-poisonous, non-corrosive, liquefied gas
1955	**123**	Chloropicrin and non-flammable, non-liquefied compressed gas mixture
1955	**123**	Compressed gas, poisonous, n.o.s.
1955	**123**	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone A)
1955	**123**	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone B)
1955	**123**	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone C)
1955	**123**	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone D)
1955	**123**	Compressed gas, toxic, n.o.s.
1955	**123**	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone A)
1955	**123**	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone B)
1955	**123**	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone C)
1955	**123**	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone D)
1955	**123**	Liquefied gas, poisonous, n.o.s.
1955	**123**	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone A)
1955	**123**	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone B)
1955	**123**	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone C)
1955	**123**	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone D)
1955	**123**	Liquefied gas, toxic, n.o.s.
1955	**123**	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone A)
1955	**123**	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone B)
1955	**123**	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone C)
1955	**123**	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone D)
1955	**123**	Methyl bromide and nonflammable, nonliquefied compressed gas mixture
1955	**123**	Organic phosphate compound mixed with compressed gas
1955	**123**	Organic phosphate mixed with compressed gas

ID No.	Guide No.	Name of Material
1955	**123**	Organic phosphorus compound mixed with compressed gas
1955	**123**	Poisonous gas, n.o.s.
1955	**123**	Poisonous liquid, n.o.s.
1956	**126**	Accumulators, pressurized, pneumatic or hydraulic
1956	**126**	Compressed gas, n.o.s.
1956	**126**	Hexafluoropropylene oxide
1956	**126**	Liquefied gas, n.o.s.
1956	**126**	Water pump system
1957	**115**	Deuterium
1957	**115**	Deuterium, compressed
1958	**126**	1,2-Dichloro-1,1,2,2-tetrafluoroethane
1958	**126**	Dichlorotetrafluoroethane
1958	**126**	Refrigerant gas R-114
1959	**116P**	1,1-Difluoroethylene
1959	**116P**	Refrigerant gas R-1132a
1960	**115**	Engine starting fluid
1961	**115**	Ethane, refrigerated liquid
1961	**115**	Ethane-Propane mixture, refrigerated liquid
1961	**115**	Propane-Ethane mixture, refrigerated liquid
1962	**116P**	Ethylene
1962	**116P**	Ethylene, compressed
1963	**120**	Helium, refrigerated liquid (cryogenic liquid)
1964	**115**	Hydrocarbon gas, compressed, n.o.s.
1964	**115**	Hydrocarbon gas mixture, compressed, n.o.s.
1965	**115**	Hydrocarbon gas, liquefied, n.o.s.
1965	**115**	Hydrocarbon gas mixture, liquefied, n.o.s.
1966	**115**	Hydrogen, refrigerated liquid (cryogenic liquid)
1967	**123**	Insecticide, liquefied gas, containing Poison A or Poison B material
1967	**123**	Insecticide gas, poisonous, n.o.s.
1967	**123**	Insecticide gas, toxic, n.o.s.
1967	**123**	Parathion and compressed gas mixture
1968	**126**	Insecticide, liquefied gas
1968	**126**	Insecticide gas, n.o.s.
1969	**115**	Isobutane
1969	**115**	Isobutane mixture
1970	**120**	Krypton, refrigerated liquid (cryogenic liquid)
1971	**115**	Methane
1971	**115**	Methane, compressed
1971	**115**	Natural gas, compressed
1972	**115**	Liquefied natural gas (cryogenic liquid)
1972	**115**	LNG (cryogenic liquid)
1972	**115**	Methane, refrigerated liquid (cryogenic liquid)
1972	**115**	Natural gas, refrigerated liquid (cryogenic liquid)
1973	**126**	Chlorodifluoromethane and Chloropentafluoroethane mixture
1973	**126**	Chloropentafluoroethane and Chlorodifluoromethane mixture
1973	**126**	Refrigerant gas R-502
1974	**126**	Bromochlorodifluoromethane
1974	**126**	Chlorodifluorobromomethane
1974	**126**	Refrigerant gas R-12B1

ID No.	Guide No.	Name of Material
1975	**124**	Dinitrogen tetroxide and Nitric oxide mixture
1975	**124**	Nitric oxide and Dinitrogen tetroxide mixture
1975	**124**	Nitric oxide and Nitrogen dioxide mixture
1975	**124**	Nitric oxide and Nitrogen tetroxide mixture
1975	**124**	Nitrogen dioxide and Nitric oxide mixture
1975	**124**	Nitrogen tetroxide and Nitric oxide mixture
1976	**126**	Octafluorocyclobutane
1976	**126**	Refrigerant gas RC-318
1977	**120**	Nitrogen, refrigerated liquid (cryogenic liquid)
1978	**115**	Propane
1978	**115**	Propane mixture
1979	**121**	Rare gases mixture
1979	**121**	Rare gases mixture, compressed
1980	**122**	Helium-Oxygen mixture
1980	**122**	Oxygen and Rare gases mixture
1980	**122**	Oxygen and Rare gases mixture, compressed
1980	**122**	Rare gases and Oxygen mixture
1980	**122**	Rare gases and Oxygen mixture, compressed
1981	**121**	Nitrogen and Rare gases mixture
1981	**121**	Nitrogen and Rare gases mixture, compressed
1981	**121**	Rare gases and Nitrogen mixture
1981	**121**	Rare gases and Nitrogen mixture, compressed
1982	**126**	Refrigerant gas R-14, compressed
1982	**126**	Tetrafluoromethane
1982	**126**	Tetrafluoromethane, compressed
1983	**126**	1-Chloro-2,2,2-trifluoroethane
1983	**126**	Chlorotrifluoroethane
1983	**126**	Refrigerant gas R-133a
1984	**126**	Refrigerant gas R-23
1984	**126**	Trifluoromethane
1986	**131**	Alcohols, flammable, poisonous, n.o.s.
1986	**131**	Alcohols, flammable, toxic, n.o.s.
1986	**131**	Alcohols, poisonous, n.o.s.
1986	**131**	Alcohols, toxic, n.o.s.
1986	**131**	Denatured alcohol (toxic)
1986	**131**	Propargyl alcohol
1987	**127**	Alcohols, n.o.s.
1987	**127**	Denatured alcohol
1988	**131**	Aldehydes, flammable, poisonous, n.o.s.
1988	**131**	Aldehydes, flammable, toxic, n.o.s.
1988	**131**	Aldehydes, poisonous, n.o.s.
1988	**131**	Aldehydes, toxic, n.o.s.
1989	**129**	Aldehydes, n.o.s.
1989	**129**	Benzaldehyde
1990	**129**	Benzaldehyde
1991	**131P**	Chloroprene, inhibited
1992	**131**	Flammable liquid, poisonous, n.o.s.
1992	**131**	Flammable liquid, toxic, n.o.s.
1993	**128**	Combustible liquid, n.o.s.
1993	**128**	Compound, tree or weed killing, liquid (flammable)
1993	**128**	Compounds, cleaning, liquid (flammable)
1993	**128**	Cosmetics, n.o.s.

ID No.	Guide No.	Name of Material
1993	**128**	Diesel fuel
1993	**128**	Disinfectant, liquid, n.o.s.
1993	**128**	Drugs, n.o.s.
1993	**128**	Ethyl nitrate
1993	**128**	Flammable liquid, n.o.s.
1993	**128**	Fuel oil
1993	**128**	Heater for refrigerator car, liquid fuel type
1993	**128**	Medicines, flammable, liquid, n.o.s.
1993	**128**	Refrigerating machine
1994	**131**	Iron pentacarbonyl
1999	**130**	Asphalt
1999	**130**	Asphalt, cutback
1999	**130**	Tars, liquid
2000	**133**	Celluloid, in blocks, rods, rolls, sheets, tubes, etc., except scrap
2001	**133**	Cobalt naphthenates, powder
2002	**135**	Celluloid, scrap
2003	**135**	Metal alkyls, n.o.s.
2003	**135**	Metal alkyls, water-reactive, n.o.s.
2003	**135**	Metal aryls, n.o.s
2003	**135**	Metal aryls, water-reactive, n.o.s.
2004	**135**	Magnesium diamide
2005	**135**	Magnesium diphenyl
2006	**135**	Plastic, nitrocellulose-based, spontaneously combustible, n.o.s.
2006	**135**	Plastics, nitrocellulose-based, self-heating, n.o.s.
2008	**135**	Zirconium powder, dry
2009	**135**	Zirconium, dry, finished sheets, strips or coiled wire
2010	**138**	Magnesium hydride
2011	**139**	Magnesium phosphide
2012	**139**	Potassium phosphide
2013	**139**	Strontium phosphide
2014	**140**	Hydrogen peroxide, aqueous solution, with not less than 20% but not more than 60% Hydrogen peroxide (stabilized as necessary)
2015	**143**	Hydrogen peroxide, aqueous solution, stabilized, with more than 60% Hydrogen peroxide
2015	**143**	Hydrogen peroxide, stabilized
2016	**151**	Ammunition, poisonous, non-explosive
2016	**151**	Ammunition, toxic, non-explosive
2017	**159**	Ammunition, tear-producing, non-explosive
2017	**159**	Grenade, tear gas
2018	**152**	Chloroanilines, solid
2019	**152**	Chloroanilines, liquid
2020	**153**	Chlorophenols, solid
2020	**153**	Trichlorophenol
2021	**153**	Chlorophenols, liquid
2022	**153**	Cresylic acid
2022	**153**	Mining reagent, liquid
2023	**131P**	1-Chloro-2,3-epoxypropane
2023	**131P**	Epichlorohydrin
2024	**151**	Mercury compound, liquid, n.o.s.
2025	**151**	Mercury compound, solid, n.o.s.
2026	**151**	Phenylmercuric compound, n.o.s.
2027	**151**	Sodium arsenite, solid
2028	**153**	Bombs, smoke, non-explosive, with corrosive liquid, without initiating device

ID No.	Guide No.	Name of Material
2029	**132**	Hydrazine, anhydrous
2029	**132**	Hydrazine, aqueous solutions, with more than 64% Hydrazine
2030	**153**	Hydrazine, aqueous solution, with not less than 37% but not more than 64% Hydrazine
2030	**153**	Hydrazine, aqueous solutions, with not more than 64% Hydrazine
2030	**153**	Hydrazine hydrate
2031	**157**	Nitric acid, other than red fuming
2032	**157**	Nitric acid, fuming
2032	**157**	Nitric acid, red fuming
2033	**154**	Potassium monoxide
2034	**115**	Hydrogen and Methane mixture, compressed
2034	**115**	Methane and Hydrogen mixture, compressed
2035	**115**	Refrigerant gas R-143a
2035	**115**	1,1,1-Trifluoroethane
2035	**115**	Trifluoroethane, compressed
2036	**121**	Xenon
2036	**121**	Xenon, compressed
2037	**115**	Gas cartridges
2037	**115**	Receptacles, small, containing gas
2038	**152**	Dinitrotoluenes
2038	**152**	Dinitrotoluenes, liquid
2038	**152**	Dinitrotoluenes, solid
2044	**115**	2,2-Dimethylpropane
2045	**129**	Isobutyl aldehyde
2045	**129**	Isobutyraldehyde
2046	**130**	Cymenes
2047	**132**	Dichloropropenes
2048	**129**	Dicyclopentadiene
2049	**130**	Diethylbenzene
2050	**127**	Diisobutylene, isomeric compounds
2051	**132**	2-Dimethylaminoethanol
2051	**132**	Dimethylethanolamine
2052	**128**	Dipentene
2053	**129**	Methylamyl alcohol
2053	**129**	Methyl isobutyl carbinol
2053	**129**	M.I.B.C.
2054	**132**	Morpholine
2054	**132**	Morpholine, aqueous mixture
2055	**128P**	Styrene monomer, inhibited
2056	**127**	Tetrahydrofuran
2057	**128**	Tripropylene
2058	**129**	Valeraldehyde
2059	**127**	Collodion
2059	**127**	Nitrocellulose, block, wet, with not less than 25% alcohol
2059	**127**	Nitrocellulose, colloided, granular or flake, wet, with not less than 20% alcohol or solvent
2059	**127**	Nitrocellulose, solution, flammable
2059	**127**	Nitrocellulose, solution, in a flammable liquid
2067	**140**	Ammonium nitrate fertilizers
2068	**140**	Ammonium nitrate fertilizers, with Calcium carbonate
2069	**140**	Ammonium nitrate fertilizers, with Ammonium sulfate
2069	**140**	Ammonium nitrate fertilizers, with Ammonium sulphate
2069	**140**	Ammonium nitrate mixed fertilizers

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2070	**143**	Ammonium nitrate fertilizers, with Phosphate or Potash
2071	**140**	Ammonium nitrate fertilizer, with not more than 0.4% combustible material
2071	**140**	Ammonium nitrate fertilizers
2072	**140**	Ammonium nitrate fertilizer, n.o.s.
2072	**140**	Ammonium nitrate fertilizers
2073	**125**	Ammonia, solution, with more than 35% but not more than 50% Ammonia
2074	**153P**	Acrylamide
2075	**153**	Chloral, anhydrous, inhibited
2076	**153**	Cresols
2077	**153**	alpha-Naphthylamine
2077	**153**	Naphthylamine (alpha)
2078	**156**	Toluene diisocyanate
2079	**154**	Diethylenetriamine
2080	**145**	Acetyl acetone peroxide
2081	**147**	Acetyl benzoyl peroxide
2082	**148**	Acetyl cyclohexanesulfonyl peroxide
2082	**148**	Acetyl cyclohexanesulphonyl peroxide
2083	**148**	Acetyl cyclohexanesulfonyl peroxide
2083	**148**	Acetyl cyclohexanesulphonyl peroxide
2084	**148**	Acetyl peroxide
2085	**146**	Benzoyl peroxide
2087	**146**	Benzoyl peroxide
2088	**146**	Benzoyl peroxide
2089	**145**	Benzoyl peroxide
2090	**146**	Benzoyl peroxide
2091	**145**	tert-Butyl cumene peroxide
2091	**145**	tert-Butyl cumyl peroxide
2091	**145**	tert-Butyl isopropyl benzene hydroperoxide
2092	**147**	tert-Butyl hydroperoxide, not more than 80% in Di-tert-butyl peroxide and/or solvent
2093	**147**	tert-Butyl hydroperoxide
2094	**147**	tert-Butyl hydroperoxide
2095	**146**	tert-Butyl peroxyacetate
2096	**146**	tert-Butyl peroxyacetate
2097	**146**	tert-Butyl peroxybenzoate
2098	**145**	tert-Butyl peroxybenzoate
2099	**146**	tert-Butyl monoperoxymaleate
2102	**145**	Di-tert-butyl peroxide
2103	**146**	tert-Butyl peroxyisopropyl carbonate
2104	**145**	tert-Butyl peroxyisononanoate
2104	**145**	tert-Butyl peroxy-3,5,5-trimethylhexanoate
2106	**146**	Di-(tert-butylperoxy)phthalate
2107	**145**	Di-(tert-butylperoxy)phthalate
2108	**145**	Di-(tert-butylperoxy)phthalate
2110	**148**	tert-Butyl peroxypivalate
2111	**146**	2,2-Di-(tert-butylperoxy)butane
2112	**145**	1,3-Di-(2-tert-butylperoxy-isopropyl)benzene and 1,4-Di-(2-tert-butylperoxy-isopropyl)benzene mixtures
2112	**145**	1,4-Di-(2-tert-butylperoxy-isopropyl)benzene and 1,3-Di-(2-tert-butylperoxy-isopropyl)benzene mixtures
2113	**146**	p-Chlorobenzoyl peroxide
2114	**145**	p-Chlorobenzoyl peroxide
2115	**145**	p-Chlorobenzoyl peroxide
2116	**147**	Cumene hydroperoxide

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2118	**147**	Cyclohexanone peroxide, not more than 72% in solution
2119	**147**	Cyclohexanone peroxide, not more than 90%, with not less than 10% water
2120	**148**	Decanoyl peroxide
2121	**145**	Dicumyl peroxide
2122	**148**	Di-(2-ethylhexyl)-peroxydicarbonate
2123	**148**	Di-(2-ethylhexyl)-peroxydicarbonate
2124	**145**	Lauroyl peroxide
2125	**147**	p-Menthane hydroperoxide
2126	**147**	Methyl isobutyl ketone peroxide
2128	**148**	Isononanoyl peroxide
2129	**148**	Caprylyl peroxide
2129	**148**	Caprylyl peroxide, solution
2129	**148**	Octanoyl peroxide
2130	**148**	Pelargonyl peroxide
2131	**147**	Peracetic acid, solution
2131	**147**	Peroxyacetic acid, solution
2132	**148**	Propionyl peroxide
2133	**148**	Isopropyl percarbonate, unstabilized
2133	**148**	Isopropyl peroxydicarbonate
2134	**148**	Isopropyl peroxydicarbonate
2135	**146**	Succinic acid peroxide
2136	**145**	Tetralin hydroperoxide
2137	**146**	2,4-Dichlorobenzoyl peroxide
2138	**145**	2,4-Dichlorobenzoyl peroxide
2139	**145**	2,4-Dichlorobenzoyl peroxide
2140	**146**	n-Butyl-4,4-di-(tert-butylperoxy)valerate
2141	**145**	n-Butyl-4,4-di-(tert-butylperoxy)valerate
2142	**148**	tert-Butyl peroxyisobutyrate
2143	**148**	tert-Butyl peroxy-2-ethylhexanoate
2144	**148**	tert-Butyl peroxydiethylacetate
2145	**146**	1,1-Di-(tert-butylperoxy)-3,3,5-trimethyl cyclohexane
2146	**145**	1,1-Di-(tert-butylperoxy)-3,3,5-trimethyl cyclohexane
2147	**145**	1,1-Di-(tert-butylperoxy)-3,3,5-trimethyl cyclohexane
2148	**145**	Di-(1-hydroxycyclohexyl)-peroxide
2149	**148**	Dibenzyl peroxydicarbonate
2150	**148**	Di-(sec-butyl)peroxydicarbonate
2151	**148**	Di-(sec-butyl)peroxydicarbonate
2152	**148**	Dicyclohexyl peroxydicarbonate
2153	**148**	Dicyclohexyl peroxydicarbonate
2154	**148**	Di-(4-tert-butylcyclohexyl)-peroxydicarbonate
2155	**145**	2,5-Dimethyl-2,5-di-(tert-butylperoxy)hexane
2156	**145**	2,5-Dimethyl-2,5-di-(tert-butylperoxy)hexane
2157	**148**	2,5-Dimethyl-2,5-di-(2-ethyl-hexanoylperoxy)hexane
2158	**146**	2,5-Dimethyl-2,5-di-(tert-butylperoxy)hexyne-3
2159	**145**	2,5-Dimethyl-2,5-di-(tert-butylperoxy)hexyne-3, with not more than 52% Peroxide in inert solid
2160	**145**	1,1,3,3-Tetramethylbutyl hydroperoxide
2161	**148**	1,1,3,3-Tetramethylbutyl peroxy-2-ethylhexanoate
2162	**147**	Pinane hydroperoxide
2163	**148**	Diacetone alcohol peroxides

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2164	**148**	Dicetyl peroxydicarbonate
2165	**146**	3,3,6,6,9,9-Hexamethyl-1,2,4,5-tetraoxacyclononane
2166	**145**	3,3,6,6,9,9-Hexamethyl-1,2,4,5-tetraoxacyclononane
2167	**145**	3,3,6,6,9,9-Hexamethyl-1,2,4,5-tetraoxacyclononane
2168	**145**	2,2-Di-(4,4-di-tert-butylperoxycyclohexyl)propane
2169	**148**	Butyl peroxydicarbonate
2170	**148**	Butyl peroxydicarbonate
2171	**145**	Diisopropylbenzene hydroperoxide
2172	**146**	2,5-Dimethyl-2,5-di-(benzoylperoxy)hexane
2173	**145**	2,5-Dimethyl-2,5-di-(benzoylperoxy)hexane
2174	**146**	2,5-Dimethyl-2,5-dihydroperoxy hexane, not more than 82% with water
2174	**146**	Dimethylhexane dihydroperoxide, with 18% or more water
2175	**148**	Diethyl peroxydicarbonate
2176	**148**	Di-n-propyl peroxydicarbonate
2177	**148**	tert-Butyl peroxyneodecanoate
2178	**146**	2,2-Dihydroperoxypropane
2179	**146**	1,1-Di-(tert-butylperoxy)-cyclohexane
2180	**146**	1,1-Di-(tert-butylperoxy)-cyclohexane
2182	**148**	Diisobutyryl peroxide
2183	**145**	tert-Butyl peroxycrotonate
2184	**146**	Ethyl-3,3-di-(tert-butylperoxy)butyrate
2185	**145**	Ethyl-3,3-di-(tert-butylperoxy)butyrate, not more than 77% in solution

ID No.	Guide No.	Name of Material
2186	**125**	Hydrogen chloride, refrigerated liquid
2187	**120**	Carbon dioxide, refrigerated liquid
2188	**119**	Arsine
2188	**119**	SA
2189	**119**	Dichlorosilane
2190	**124**	Oxygen difluoride
2190	**124**	Oxygen difluoride, compressed
2191	**123**	Sulfuryl fluoride
2191	**123**	Sulphuryl fluoride
2192	**119**	Germane
2193	**126**	Hexafluoroethane
2193	**126**	Hexafluoroethane, compressed
2193	**126**	Refrigerant gas R-116, compressed
2194	**125**	Selenium hexafluoride
2195	**125**	Tellurium hexafluoride
2196	**125**	Tungsten hexafluoride
2197	**125**	Hydrogen iodide, anhydrous
2198	**125**	Phosphorus pentafluoride
2198	**125**	Phosphorus pentafluoride, compressed
2199	**119**	Phosphine
2200	**116P**	Propadiene, inhibited
2201	**122**	Nitrous oxide, refrigerated liquid
2202	**117**	Hydrogen selenide, anhydrous
2203	**116**	Silane
2203	**116**	Silane, compressed
2204	**119**	Carbonyl sulfide
2204	**119**	Carbonyl sulphide
2205	**153**	Adiponitrile
2206	**155**	Isocyanate solution, poisonous, n.o.s.

ID No.	Guide No.	Name of Material
2206	**155**	Isocyanate solution, toxic, n.o.s.
2206	**155**	Isocyanate solutions, n.o.s.
2206	**155**	Isocyanates, n.o.s.
2206	**155**	Isocyanates, poisonous, n.o.s.
2206	**155**	Isocyanates, toxic, n.o.s.
2207	**155**	Isocyanate solutions, n.o.s. (toxic)
2207	**155**	Isocyanates, n.o.s. (toxic)
2208	**140**	Bleaching powder
2208	**140**	Calcium hypochlorite mixture, dry, with more than 10% but not more than 39% available Chlorine
2209	**132**	Formaldehyde, solutions (Formalin) (corrosive)
2210	**135**	Maneb
2210	**135**	Maneb preparation, with not less than 60% Maneb
2210	**135**	Pesticide, water-reactive
2211	**133**	Polymeric beads, expandable
2211	**133**	Polystyrene beads, expandable
2212	**171**	Asbestos
2212	**171**	Asbestos, blue
2212	**171**	Asbestos, brown
2212	**171**	Blue asbestos
2212	**171**	Brown asbestos
2213	**133**	Paraformaldehyde
2214	**156**	Phthalic anhydride
2215	**156**	Maleic acid
2215	**156**	Maleic anhydride
2216	**171**	Fish meal, stabilized
2216	**171**	Fish meal containing 6% to 12% water
2216	**171**	Fish scrap, stabilized
2216	**171**	Fish scrap containing 6% to 12% water
2217	**135**	Seed cake, with not more than 1.5% oil and not more than 11% moisture
2218	**132P**	Acrylic acid, inhibited
2219	**129**	Allyl glycidyl ether
2222	**127**	Anisole
2224	**152**	Benzonitrile
2225	**156**	Benzenesulfonyl chloride
2225	**156**	Benzenesulphonyl chloride
2226	**156**	Benzotrichloride
2227	**129P**	n-Butyl methacrylate
2227	**129P**	n-Butyl methacrylate, inhibited
2228	**153**	Butylphenols, liquid
2229	**153**	Butylphenols, solid
2232	**153**	Chloroacetaldehyde
2232	**153**	2-Chloroethanal
2233	**152**	Chloroanisidines
2234	**130**	Chlorobenzotrifluorides
2235	**153**	Chlorobenzyl chlorides
2236	**156**	3-Chloro-4-methylphenyl isocyanate
2237	**153**	Chloronitroanilines
2238	**130**	Chlorotoluenes
2239	**153**	Chlorotoluidines
2239	**153**	Chlorotoluidines, liquid
2239	**153**	Chlorotoluidines, solid
2240	**154**	Chromosulfuric acid
2240	**154**	Chromosulphuric acid
2241	**128**	Cycloheptane
2242	**128**	Cycloheptene
2243	**130**	Cyclohexyl acetate
2244	**129**	Cyclopentanol

ID No.	Guide No.	Name of Material
2245	**127**	Cyclopentanone
2246	**128**	Cyclopentene
2247	**128**	n-Decane
2248	**132**	Di-n-butylamine
2249	**153**	Dichlorodimethyl ether, symmetrical
2250	**156**	Dichlorophenyl isocyanates
2251	**127P**	Bicyclo[2.2.1]hepta-2,5-diene
2251	**127P**	Bicyclo[2.2.1]hepta-2,5-diene, inhibited
2251	**127P**	Dicycloheptadiene
2251	**127P**	2,5-Norbornadiene
2251	**127P**	2,5-Norbornadiene, inhibited
2252	**127**	1,2-Dimethoxyethane
2253	**153**	N,N-Dimethylaniline
2254	**133**	Matches, fusee
2255	**146**	Organic peroxides, samples, n.o.s
2255	**146**	Polyester resin kit
2256	**130**	Cyclohexene
2257	**138**	Potassium
2257	**138**	Potassium, metal
2258	**132**	1,2-Propylenediamine
2258	**132**	1,3-Propylenediamine
2259	**153**	Triethylenetetramine
2260	**132**	Tripropylamine
2261	**153**	Xylenols
2262	**156**	Dimethylcarbamoyl chloride
2263	**128**	Dimethylcyclohexanes
2264	**132**	Dimethylcyclohexylamine
2265	**129**	N,N-Dimethylformamide
2266	**132**	Dimethyl-N-propylamine
2267	**156**	Dimethyl chlorothiophosphate
2267	**156**	Dimethyl phosphorochloridothioate
2267	**156**	Dimethyl thiophosphoryl chloride
2269	**153**	3,3'-Iminodipropylamine
2270	**132**	Ethylamine, aqueous solution, with not less than 50% but not more than 70% Ethylamine
2271	**127**	Ethyl amyl ketone
2272	**153**	N-Ethylaniline
2273	**153**	2-Ethylaniline
2274	**153**	N-Ethyl-N-benzylaniline
2275	**129**	2-Ethylbutanol
2276	**132**	2-Ethylhexylamine
2277	**129P**	Ethyl methacrylate
2277	**129P**	Ethyl methacrylate, inhibited
2278	**128**	n-Heptene
2279	**151**	Hexachlorobutadiene
2280	**153**	Hexamethylenediamine, solid
2281	**156**	Hexamethylene diisocyanate
2282	**129**	Hexanols
2283	**130P**	Isobutyl methacrylate
2283	**130P**	Isobutyl methacrylate, inhibited
2284	**131**	Isobutyronitrile
2285	**156**	Isocyanatobenzotrifluorides
2286	**128**	Pentamethylheptane
2287	**128**	Isoheptene
2288	**128**	Isohexene
2289	**153**	Isophoronediamine
2290	**156**	IPDI
2290	**156**	Isophorone diisocyanate
2291	**151**	Lead chloride
2291	**151**	Lead compound, soluble, n.o.s.
2291	**151**	Lead fluoborate

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2293	**127**	4-Methoxy-4-methyl-pentan-2-one
2294	**153**	N-Methylaniline
2295	**155**	Methyl chloroacetate
2296	**128**	Methylcyclohexane
2297	**127**	Methylcyclohexanone
2298	**128**	Methylcyclopentane
2299	**155**	Methyl dichloroacetate
2300	**153**	2-Methyl-5-ethylpyridine
2301	**127**	2-Methylfuran
2302	**127**	5-Methylhexan-2-one
2303	**128**	Isopropenylbenzene
2304	**133**	Naphthalene, molten
2305	**153**	Nitrobenzenesulfonic acid
2305	**153**	Nitrobenzenesulphonic acid
2306	**152**	Nitrobenzotrifluorides
2307	**152**	3-Nitro-4-chlorobenzotrifluoride
2308	**157**	Nitrosylsulfuric acid
2308	**157**	Nitrosylsulphuric acid
2309	**128P**	Octadiene
2310	**131**	Pentan-2,4-dione
2310	**131**	2,4-Pentanedione
2310	**131**	Pentane-2,4-dione
2311	**153**	Phenetidines
2312	**153**	Phenol, molten
2313	**130**	Picolines
2315	**171**	Articles containing Polychlorinated biphenyls (PCB)
2315	**171**	PCB
2315	**171**	Polychlorinated biphenyls
2315	**171**	Polychlorinated biphenyls, liquid
2315	**171**	Polychlorinated biphenyls, solid
2316	**157**	Sodium cuprocyanide, solid
2317	**157**	Sodium cuprocyanide, solution
2318	**135**	Sodium hydrosulfide, solid, with less than 25% water of crystallization
2318	**135**	Sodium hydrosulfide, with less than 25% water of crystallization
2318	**135**	Sodium hydrosulphide, solid, with less than 25% water of crystallization
2318	**135**	Sodium hydrosulphide, with less than 25% water of crystallization
2319	**128**	Terpene hydrocarbons, n.o.s.
2320	**153**	Tetraethylenepentamine
2321	**153**	Trichlorobenzenes, liquid
2322	**152**	Trichlorobutene
2323	**129**	Triethyl phosphite
2324	**128**	Triisobutylene
2325	**129**	1,3,5-Trimethylbenzene
2326	**153**	Trimethylcyclohexylamine
2327	**153**	Trimethylhexamethylenediamines
2328	**156**	Trimethylhexamethylene diisocyanate
2329	**129**	Trimethyl phosphite
2330	**128**	Undecane
2331	**154**	Zinc chloride, anhydrous
2332	**129**	Acetaldehyde oxime
2333	**131**	Allyl acetate
2334	**131**	Allylamine
2335	**131**	Allyl ethyl ether
2336	**131**	Allyl formate
2337	**131**	Phenyl mercaptan
2338	**131**	Benzotrifluoride
2339	**130**	2-Bromobutane
2340	**130**	2-Bromoethyl ethyl ether

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2341	130	1-Bromo-3-methylbutane
2342	130	Bromomethylpropanes
2343	130	2-Bromopentane
2344	130	2-Bromopropane
2344	130	Bromopropanes
2345	129	3-Bromopropyne
2346	127	Butanedione
2346	127	Diacetyl
2347	130	Butyl mercaptan
2348	129P	Butyl acrylate
2348	129P	Butyl acrylates, inhibited
2350	127	Butyl methyl ether
2351	129	Butyl nitrites
2352	127P	Butyl vinyl ether, inhibited
2353	132	Butyryl chloride
2354	131	Chloromethyl ethyl ether
2356	129	2-Chloropropane
2357	132	Cyclohexylamine
2358	128P	Cyclooctatetraene
2359	132	Diallylamine
2360	131P	Diallyl ether
2361	132	Diisobutylamine
2362	130	1,1-Dichloroethane
2363	130	Ethyl mercaptan
2364	127	n-Propyl benzene
2366	127	Diethyl carbonate
2367	130	alpha-Methylvaleraldehyde
2367	130	Methyl valeraldehyde (alpha)
2368	127	alpha-Pinene
2368	127	Pinene (alpha)
2369	152	Ethylene glycol monobutyl ether
2370	128	1-Hexene
2371	128	Isopentenes
2372	129	1,2-Di-(dimethylamino)ethane
2373	127	Diethoxymethane
2374	127	3,3-Diethoxypropene
2375	129	Diethyl sulfide
2375	129	Diethyl sulphide
2376	127	2,3-Dihydropyran
2377	127	1,1-Dimethoxyethane
2378	131	2-Dimethylaminoacetonitrile
2379	132	1,3-Dimethylbutylamine
2380	127	Dimethyldiethoxysilane
2381	130	Dimethyl disulfide
2381	130	Dimethyl disulphide
2382	131	1,2-Dimethylhydrazine
2382	131	Dimethylhydrazine, symmetrical
2383	132	Dipropylamine
2384	127	Di-n-propyl ether
2384	127	Dipropyl ether
2385	129	Ethyl isobutyrate
2386	132	1-Ethylpiperidine
2387	130	Fluorobenzene
2388	130	Fluorotoluenes
2389	127	Furan
2390	129	2-Iodobutane
2391	129	Iodomethylpropanes
2392	129	Iodopropanes
2393	132	Isobutyl formate
2394	129	Isobutyl propionate
2395	132	Isobutyryl chloride
2396	131P	Methacrylaldehyde
2396	131P	Methacrylaldehyde, inhibited
2397	127	3-Methylbutan-2-one
2398	127	Methyl tert-butyl ether
2399	132	1-Methylpiperidine

ID No.	Guide No.	Name of Material
2400	**130**	Methyl isovalerate
2401	**132**	Piperidine
2402	**130**	Isopropyl mercaptan
2402	**130**	Propanethiols
2402	**130**	Propyl mercaptan
2403	**129P**	Isopropenyl acetate
2404	**131**	Propionitrile
2405	**129**	Isopropyl butyrate
2406	**131**	Isopropyl isobutyrate
2407	**155**	Isopropyl chloroformate
2409	**129**	Isopropyl propionate
2410	**129**	1,2,3,6-Tetrahydropyridine
2410	**129**	1,2,5,6-Tetrahydropyridine
2411	**131**	Butyronitrile
2412	**129**	Tetrahydrothiophene
2413	**128**	Tetrapropyl orthotitanate
2414	**130**	Thiophene
2416	**129**	Trimethyl borate
2417	**125**	Carbonyl fluoride
2417	**125**	Carbonyl fluoride, compressed
2418	**125**	Sulfur tetrafluoride
2418	**125**	Sulphur tetrafluoride
2419	**116**	Bromotrifluoroethylene
2420	**125**	Hexafluoroacetone
2421	**124**	Nitrogen trioxide
2422	**126**	Octafluorobut-2-ene
2422	**126**	Refrigerant gas R-1318
2424	**126**	Octafluoropropane
2424	**126**	Refrigerant gas R-218
2426	**140**	Ammonium nitrate, liquid (hot concentrated solution)
2427	**140**	Potassium chlorate, aqueous solution

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2427	**140**	Potassium chlorate, solution
2428	**140**	Sodium chlorate, aqueous solution
2429	**140**	Calcium chlorate, aqueous solution
2429	**140**	Calcium chlorate, solution
2430	**153**	Alkyl phenols, solid, n.o.s. (including C2-C12 homologues)
2431	**153**	Anisidines
2431	**153**	Anisidines, liquid
2431	**153**	Anisidines, solid
2432	**153**	N,N-Diethylaniline
2433	**152**	Chloronitrotoluenes
2433	**152**	Chloronitrotoluenes, liquid
2433	**152**	Chloronitrotoluenes, solid
2434	**156**	Dibenzyldichlorosilane
2435	**156**	Ethylphenyldichlorosilane
2436	**129**	Thioacetic acid
2437	**156**	Methylphenyldichlorosilane
2438	**132**	Trimethylacetyl chloride
2439	**154**	Sodium bifluoride, solid
2439	**154**	Sodium bifluoride, solution
2439	**154**	Sodium hydrogendifluoride
2439	**154**	Sodium hydrogen fluoride
2440	**154**	Stannic chloride, pentahydrate
2440	**154**	Tin tetrachloride, pentahydrate
2441	**135**	Titanium trichloride, pyrophoric
2441	**135**	Titanium trichloride mixture, pyrophoric
2442	**156**	Trichloroacetyl chloride
2443	**137**	Titanium tetrachloride and Vanadium oxytrichloride, mixture
2443	**137**	Vanadium oxytrichloride

ID No.	Guide No.	Name of Material
2443	137	Vanadium oxytrichloride and Titanium tetrachloride, mixture
2444	137	Vanadium tetrachloride
2445	135	Lithium alkyls
2446	153	Nitrocresols
2447	136	Phosphorus, white, molten
2447	136	White phosphorus, molten
2447	136	Yellow phosphorus, molten
2448	133	Sulfur, molten
2448	133	Sulphur, molten
2449	154	Ammonium oxalate
2449	154	Oxalates, water soluble
2451	122	Nitrogen trifluoride
2451	122	Nitrogen trifluoride, compressed
2452	116P	Ethylacetylene, inhibited
2453	115	Ethyl fluoride
2453	115	Refrigerant gas R-161
2454	115	Methyl fluoride
2454	115	Refrigerant gas R-41
2455	116	Methyl nitrite
2456	130P	2-Chloropropene
2457	128	2,3-Dimethylbutane
2458	130	Hexadiene
2459	127	2-Methyl-1-butene
2460	127	2-Methyl-2-butene
2461	127	Methylpentadiene
2462	128	Methyl pentane
2463	138	Aluminum hydride
2464	141	Beryllium nitrate
2465	140	Dichloroisocyanuric acid, dry
2465	140	Dichloroisocyanuric acid salts
2465	140	Potassium dichloro-s-triazinetrione, dry

ID No.	Guide No.	Name of Material
2465	140	Sodium dichloroisocyanurate
2465	140	Sodium dichloro-s-triazinetrione
2466	143	Potassium superoxide
2467	140	Sodium percarbonates
2468	140	Trichloroisocyanuric acid, dry
2468	140	Trichloro-s-triazinetrione, dry
2468	140	(mono)-(Trichloro)-tetra-(monopotassium dichloro)-penta-s-triazinetrione, dry
2469	140	Zinc bromate
2470	152	Phenylacetonitrile, liquid
2471	154	Osmium tetroxide
2473	154	Sodium arsanilate
2474	157	Thiophosgene
2475	157	Vanadium trichloride
2477	131	Methyl isothiocyanate
2478	155	Isocyanate solution, flammable, poisonous, n.o.s.
2478	155	Isocyanate solution, flammable, toxic, n.o.s.
2478	155	Isocyanate solutions, n.o.s.
2478	155	Isocyanates, flammable, poisonous, n.o.s.
2478	155	Isocyanates, flammable, toxic, n.o.s.
2478	155	Isocyanates, n.o.s.
2480	155	Methyl isocyanate
2481	155	Ethyl isocyanate
2482	155	n-Propyl isocyanate
2483	155	Isopropyl isocyanate
2484	155	tert-Butyl isocyanate
2485	155	n-Butyl isocyanate
2486	155	Isobutyl isocyanate
2487	155	Phenyl isocyanate

ID No.	Guide No.	Name of Material
2488	**155**	Cyclohexyl isocyanate
2489	**156**	Diphenylmethane-4,4'-diisocyanate
2490	**153**	Dichloroisopropyl ether
2491	**153**	Ethanolamine
2491	**153**	Ethanolamine, solution
2491	**153**	Monoethanolamine
2493	**132**	Hexamethyleneimine
2495	**144**	Iodine pentafluoride
2496	**156**	Propionic anhydride
2497	**153**	Sodium phenolate, solid
2498	**132**	1,2,3,6-Tetrahydrobenzaldehyde
2501	**152**	1-Aziridinyl phosphine oxide (Tris)
2501	**152**	Tri-(1-aziridinyl)phosphine oxide, solution
2501	**152**	Tris-(1-aziridinyl)phosphine oxide, solution
2502	**132**	Valeryl chloride
2503	**137**	Zirconium tetrachloride
2504	**159**	Acetylene tetrabromide
2504	**159**	Tetrabromoethane
2505	**154**	Ammonium fluoride
2506	**154**	Ammonium hydrogen sulfate
2506	**154**	Ammonium hydrogen sulphate
2507	**154**	Chloroplatinic acid, solid
2508	**156**	Molybdenum pentachloride
2509	**154**	Potassium hydrogen sulfate
2509	**154**	Potassium hydrogen sulphate
2511	**153**	2-Chloropropionic acid
2511	**153**	alpha-Chloropropionic acid
2512	**152**	Aminophenols
2513	**156**	Bromoacetyl bromide

ID No.	Guide No.	Name of Material
2514	**129**	Bromobenzene
2515	**159**	Bromoform
2516	**151**	Carbon tetrabromide
2517	**115**	1-Chloro-1,1-difluoroethane
2517	**115**	Chlorodifluoroethanes
2517	**115**	Difluorochloroethanes
2517	**115**	Refrigerant gas R-142b
2518	**153**	1,5,9-Cyclododecatriene
2520	**130P**	Cyclooctadienes
2521	**131P**	Diketene, inhibited
2522	**153P**	2-Dimethylaminoethyl methacrylate
2522	**153P**	Dimethylaminoethyl methacrylate
2524	**129**	Ethyl orthoformate
2525	**156**	Ethyl oxalate
2526	**132**	Furfurylamine
2527	**130P**	Isobutyl acrylate
2527	**130P**	Isobutyl acrylate, inhibited
2528	**129**	Isobutyl isobutyrate
2529	**132**	Isobutyric acid
2530	**132**	Isobutyric anhydride
2531	**153P**	Methacrylic acid, inhibited
2533	**156**	Methyl trichloroacetate
2534	**119**	Methylchlorosilane
2535	**132**	4-Methylmorpholine
2535	**132**	N-Methylmorpholine
2535	**132**	Methylmorpholine
2536	**127**	Methyltetrahydrofuran
2538	**133**	Nitronaphthalene
2541	**128**	Terpinolene
2542	**153**	Tributylamine
2545	**135**	Hafnium powder, dry

ID No.	Guide No.	Name of Material
2546	**135**	Titanium powder, dry
2547	**143**	Sodium superoxide
2548	**124**	Chlorine pentafluoride
2550	**147**	Methyl ethyl ketone peroxide
2551	**145**	tert-Butyl peroxydiethylacetate, with tert-Butyl peroxybenzoate
2552	**151**	Hexafluoroacetone hydrate
2553	**128**	Naphtha
2554	**129P**	Methylallyl chloride
2555	**113**	Nitrocellulose, colloided, granular or flake, wet, with not less than 20% water
2555	**113**	Nitrocellulose with water, not less than 25% water
2556	**113**	Nitrocellulose, wet, with not less than 30% alcohol or solvent
2556	**113**	Nitrocellulose with alcohol
2556	**113**	Nitrocellulose with not less than 25% alcohol
2557	**133**	Lacquer chips, dry
2557	**133**	Nitrocellulose mixture, without plasticizer, without pigment
2557	**133**	Nitrocellulose mixture, without plasticizer, with pigment
2557	**133**	Nitrocellulose mixture, with plasticizer, without pigment
2557	**133**	Nitrocellulose mixture, with plasticizer, with pigment
2557	**133**	Nitrocellulose with plasticizing substance
2558	**131**	Epibromohydrin
2560	**129**	2-Methylpentan-2-ol
2561	**127**	3-Methyl-1-butene
2562	**148**	tert-Butyl peroxyisobutyrate
2564	**153**	Trichloroacetic acid, solution
2565	**153**	Dicyclohexylamine
2567	**154**	Sodium pentachlorophenate
2570	**154**	Cadmium compound
2571	**156**	Alkylsulfuric acids
2571	**156**	Alkylsulphuric acids
2571	**156**	Ethylsulfuric acid
2571	**156**	Ethylsulphuric acid
2572	**153**	Phenylhydrazine
2573	**141**	Thallium chlorate
2574	**151**	Tricresyl phosphate
2576	**137**	Phosphorus oxybromide, molten
2577	**156**	Phenylacetyl chloride
2578	**157**	Phosphorus trioxide
2579	**153**	Piperazine
2580	**154**	Aluminum bromide, solution
2581	**154**	Aluminum chloride, solution
2582	**154**	Ferric chloride, solution
2583	**153**	Alkyl sulfonic acids, solid, with more than 5% free Sulfuric acid
2583	**153**	Alkyl sulphonic acids, solid, with more than 5% free Sulphuric acid
2583	**153**	Aryl sulfonic acids, solid, with more than 5% free Sulfuric acid
2583	**153**	Aryl sulphonic acids, solid, with more than 5% free Sulphuric acid
2583	**153**	Toluene sulfonic acid, solid, with more than 5% free Sulfuric acid
2583	**153**	Toluene sulphonic acid, solid, with more than 5% free Sulphuric acid

ID No.	Guide No.	Name of Material
2584	**153**	Alkyl sulfonic acids, liquid, with more than 5% free Sulfuric acid
2584	**153**	Alkyl sulphonic acids, liquid, with more than 5% free Sulphuric acid
2584	**153**	Aryl sulfonic acids, liquid, with more than 5% free Sulfuric acid
2584	**153**	Aryl sulphonic acids, liquid, with more than 5% free Sulphuric acid
2584	**153**	Dodecylbenzenesulfonic acid
2584	**153**	Dodecylbenzenesulphonic acid
2584	**153**	Toluene sulfonic acid, liquid, with more than 5% free Sulfuric acid
2584	**153**	Toluene sulphonic acid, liquid, with more than 5% free Sulphuric acid
2585	**153**	Alkyl sulfonic acids, solid, with not more than 5% free Sulfuric acid
2585	**153**	Alkyl sulphonic acids, solid, with not more than 5% free Sulphuric acid
2585	**153**	Aryl sulfonic acids, solid, with not more than 5% free Sulfuric acid
2585	**153**	Aryl sulphonic acids, solid, with not more than 5% free Sulphuric acid
2585	**153**	Toluene sulfonic acid, solid, with not more than 5% free Sulfuric acid
2585	**153**	Toluene sulphonic acid, solid, with not more than 5% free Sulphuric acid
2586	**153**	Alkyl sulfonic acids, liquid, with not more than 5% free Sulfuric acid
2586	**153**	Alkyl sulphonic acids, liquid, with not more than 5% free Sulphuric acid
2586	**153**	Aryl sulfonic acids, liquid, with not more than 5% free Sulfuric acid
2586	**153**	Aryl sulphonic acids, liquid, with not more than 5% free Sulphuric acid
2586	**153**	Toluene sulfonic acid, liquid, with not more than 5% free Sulfuric acid
2586	**153**	Toluene sulphonic acid, liquid, with not more than 5% free Sulphuric acid
2587	**153**	Benzoquinone
2588	**151**	Insecticide, dry, n.o.s.
2588	**151**	Pesticide, solid, poisonous
2588	**151**	Pesticide, solid, poisonous, n.o.s.
2588	**151**	Pesticide, solid, toxic, n.o.s.
2589	**155**	Vinyl chloroacetate
2590	**171**	Asbestos, white
2590	**171**	White asbestos
2591	**120**	Xenon, refrigerated liquid (cryogenic liquid)
2592	**145**	Distearyl peroxydicarbonate
2593	**148**	Di-(2-methylbenzoyl)peroxide
2594	**148**	tert-Butyl peroxyneodecanoate
2595	**148**	Dimyristyl peroxydicarbonate
2596	**145**	tert-Butyl peroxy-3-phenylphthalide
2597	**148**	Di-(3,5,5-trimethyl-1,2-dioxolanyl-3)peroxide
2598	**145**	Ethyl-3,3-di-(tert-butylperoxy)butyrate

ID No.	Guide No.	Name of Material
2599	**126**	Chlorotrifluoromethane and Trifluoromethane azeotropic mixture with approximately 60% Chlorotrifluoromethane
2599	**126**	Refrigerant gas R-13 and Refrigerant gas R-23 azeotropic mixture with 60% Refrigerant gas R-13
2599	**126**	Refrigerant gas R-23 and Refrigerant gas R-13 azeotropic mixture with 60% Refrigerant gas R-13
2599	**126**	Refrigerant gas R-503 (azeotropic mixture of Refrigerant gas R-13 and Refrigerant gas R-23 with approximately 60% Refrigerant gas R-13)
2599	**126**	Trifluoromethane and Chlorotrifluoromethane azeotropic mixture with approximately 60% Chlorotrifluoromethane
2600	**119**	Carbon monoxide and Hydrogen mixture
2600	**119**	Carbon monoxide and Hydrogen mixture, compressed
2600	**119**	Hydrogen and Carbon monoxide mixture
2600	**119**	Hydrogen and Carbon monoxide mixture, compressed
2601	**115**	Cyclobutane
2602	**126**	Dichlorodifluoromethane and Difluoroethane azeotropic mixture with approximately 74% Dichlorodifluoromethane
2602	**126**	Difluoroethane and Dichlorodifluoromethane azeotropic mixture with approximately 74% dichlorodifluoromethane
2602	**126**	Refrigerant gas R-12 and Refrigerant gas R-152a azeotropic mixture with 74% Refrigerant gas R-12
2602	**126**	Refrigerant gas R-152a and Refrigerant gas R-12 azeotropic mixture with 74% Refrigerant gas R-12
2602	**126**	Refrigerant gas R-500 (azeotropic mixture of Refrigerant gas R-12 and Refrigerant gas R-152a with approximately 74% Refrigerant gas R-12)
2603	**131**	Cycloheptatriene
2604	**132**	Boron trifluoride diethyl etherate
2605	**155**	Methoxymethyl isocyanate
2606	**155**	Methyl orthosilicate
2607	**129P**	Acrolein dimer, stabilized
2608	**129**	Nitropropanes
2609	**156**	Triallyl borate
2610	**132**	Triallylamine
2611	**131**	Propylene chlorohydrin
2612	**127**	Methyl propyl ether
2614	**129**	Methallyl alcohol
2615	**127**	Ethyl propyl ether
2616	**129**	Triisopropyl borate
2617	**129**	Methylcyclohexanols
2618	**130P**	Vinyltoluenes, inhibited
2619	**132**	Benzyldimethylamine
2620	**130**	Amyl butyrates
2621	**127**	Acetyl methyl carbinol
2622	**131P**	Glycidaldehyde
2623	**133**	Firelighters, solid, with flammable liquid
2624	**138**	Magnesium silicide

ID No.	Guide No.	Name of Material
2626	**140**	Chloric acid
2626	**140**	Chloric acid, aqueous solution, with not more than 10% Chloric acid
2627	**140**	Nitrites, inorganic, n.o.s.
2628	**151**	Potassium fluoroacetate
2629	**151**	Sodium fluoroacetate
2630	**151**	Barium selenate
2630	**151**	Barium selenite
2630	**151**	Calcium selenate
2630	**151**	Potassium selenate
2630	**151**	Potassium selenite
2630	**151**	Selenates
2630	**151**	Selenites
2630	**151**	Sodium selenite
2630	**151**	Zinc selenate
2630	**151**	Zinc selenite
2642	**154**	Fluoroacetic acid
2643	**155**	Methyl bromoacetate
2644	**151**	Methyl iodide
2645	**153**	Phenacyl bromide
2646	**151**	Hexachlorocyclopentadiene
2647	**153**	Malononitrile
2648	**154**	1,2-Dibromobutan-3-one
2649	**153**	1,3-Dichloroacetone
2650	**153**	1,1-Dichloro-1-nitroethane
2651	**153**	4,4'-Diaminodiphenylmethane
2653	**156**	Benzyl iodide
2655	**151**	Potassium fluorosilicate
2655	**151**	Potassium silicofluoride
2656	**154**	Quinoline
2657	**153**	Selenium disulfide
2657	**153**	Selenium disulphide

ID No.	Guide No.	Name of Material
2658	**152**	Selenium powder
2659	**151**	Sodium chloroacetate
2660	**153**	Mononitrotoluidines
2660	**153**	Nitrotoluidines (mono)
2661	**153**	Hexachloroacetone
2662	**153**	Hydroquinone
2664	**160**	Dibromomethane
2666	**156**	Ethyl cyanoacetate
2667	**131**	Butyltoluenes
2668	**131**	Chloroacetonitrile
2669	**152**	Chlorocresols
2669	**152**	Chlorocresols, liquid
2669	**152**	Chlorocresols, solid
2670	**157**	Cyanuric chloride
2671	**153**	Aminopyridines
2672	**154**	Ammonia, solution, with more than 10% but not more than 35% Ammonia
2672	**154**	Ammonium hydroxide
2672	**154**	Ammonium hydroxide, with more than 10% but not more than 35% Ammonia
2673	**151**	2-Amino-4-chlorophenol
2674	**154**	Sodium fluorosilicate
2674	**154**	Sodium silicofluoride
2676	**119**	Stibine
2677	**154**	Rubidium hydroxide, solution
2678	**154**	Rubidium hydroxide
2678	**154**	Rubidium hydroxide, solid
2679	**154**	Lithium hydroxide, solution
2680	**154**	Lithium hydroxide, monohydrate
2680	**154**	Lithium hydroxide, solid
2681	**154**	Caesium hydroxide, solution
2681	**154**	Cesium hydroxide, solution

ID No.	Guide No.	Name of Material
2682	**157**	Caesium hydroxide
2682	**157**	Cesium hydroxide
2683	**132**	Ammonium hydrosulfide, solution
2683	**132**	Ammonium hydrosulphide, solution
2683	**132**	Ammonium sulfide, solution
2683	**132**	Ammonium sulphide, solution
2684	**132**	3-Diethylaminopropylamine
2684	**132**	Diethylaminopropylamine
2685	**132**	N,N-Diethylethylenediamine
2686	**132**	2-Diethylaminoethanol
2686	**132**	Diethylaminoethanol
2687	**133**	Dicyclohexylammonium nitrite
2688	**159**	1-Bromo-3-chloropropane
2688	**159**	1-Chloro-3-bromopropane
2689	**153**	Glycerol alpha-monochlorohydrin
2690	**152**	N,n-Butylimidazole
2691	**137**	Phosphorus pentabromide
2692	**157**	Boron tribromide
2693	**154**	Ammonium bisulfite, solid
2693	**154**	Ammonium bisulfite, solution
2693	**154**	Ammonium bisulphite, solid
2693	**154**	Ammonium bisulphite, solution
2693	**154**	Bisulfites, aqueous solution, n.o.s.
2693	**154**	Bisulfites, inorganic, aqueous solutions, n.o.s.
2693	**154**	Bisulphites, aqueous solution, n.o.s.
2693	**154**	Bisulphites, inorganic, aqueous solutions, n.o.s.
2693	**154**	Calcium hydrogen sulfite, solution
2693	**154**	Calcium hydrogen sulphite, solution
2693	**154**	Magnesium bisulfite solution
2693	**154**	Magnesium bisulphite solution
2693	**154**	Potassium bisulfite solution
2693	**154**	Potassium bisulphite solution
2693	**154**	Zinc bisulfite solution
2693	**154**	Zinc bisulphite solution
2698	**156**	Tetrahydrophthalic anhydrides
2699	**154**	Trifluoroacetic acid
2705	**153P**	1-Pentol
2707	**128**	Dimethyldioxanes
2708	**127**	Butoxyl
2709	**128**	Butylbenzenes
2710	**127**	Dipropyl ketone
2711	**129**	Dibromobenzene
2713	**153**	Acridine
2714	**133**	Zinc resinate
2715	**133**	Aluminum resinate
2716	**153**	1,4-Butynediol
2717	**133**	Camphor
2717	**133**	Camphor, synthetic
2719	**141**	Barium bromate
2720	**141**	Chromium nitrate
2721	**141**	Copper chlorate
2722	**140**	Lithium nitrate
2723	**140**	Magnesium chlorate
2724	**140**	Manganese nitrate
2725	**140**	Nickel nitrate
2726	**140**	Nickel nitrite
2727	**141**	Thallium nitrate
2728	**140**	Zirconium nitrate
2729	**152**	Hexachlorobenzene

ID No.	Guide No.	Name of Material
2730	**152**	Nitroanisole
2730	**152**	Nitroanisole, liquid
2730	**152**	Nitroanisole, solid
2732	**152**	Nitrobromobenzene
2732	**152**	Nitrobromobenzene, liquid
2732	**152**	Nitrobromobenzene, solid
2733	**132**	Alkylamines, n.o.s.
2733	**132**	Amines, flammable, corrosive, n.o.s.
2733	**132**	Polyalkylamines, n.o.s.
2733	**132**	Polyamines, flammable, corrosive, n.o.s.
2734	**132**	Alkylamines, n.o.s.
2734	**132**	Amines, liquid, corrosive, flammable, n.o.s.
2734	**132**	Polyalkylamines, n.o.s.
2734	**132**	Polyamines, liquid, corrosive, flammable, n.o.s.
2735	**153**	Alkylamines, n.o.s.
2735	**153**	Amines, liquid, corrosive, n.o.s.
2735	**153**	Polyalkylamines, n.o.s.
2735	**153**	Polyamines, liquid, corrosive, n.o.s.
2738	**153**	N-Butylaniline
2739	**156**	Butyric anhydride
2740	**155**	n-Propyl chloroformate
2741	**141**	Barium hypochlorite, with more than 22% available Chlorine
2742	**155**	sec-Butyl chloroformate
2742	**155**	Chloroformates, n.o.s.
2742	**155**	Chloroformates, poisonous, corrosive, flammable, n.o.s.
2742	**155**	Chloroformates, toxic, corrosive, flammable, n.o.s.
2742	**155**	Isobutyl chloroformate

ID No.	Guide No.	Name of Material
2743	**155**	n-Butyl chloroformate
2744	**155**	Cyclobutyl chloroformate
2745	**157**	Chloromethyl chloroformate
2746	**156**	Phenyl chloroformate
2747	**156**	tert-Butylcyclohexyl chloroformate
2748	**156**	2-Ethylhexyl chloroformate
2749	**130**	Tetramethylsilane
2750	**153**	1,3-Dichloropropanol-2
2751	**155**	Diethylthiophosphoryl chloride
2752	**127**	1,2-Epoxy-3-ethoxypropane
2753	**153**	N-Ethylbenzyltoluidines
2754	**153**	N-Ethyltoluidines
2755	**146**	3-Chloroperoxybenzoic acid
2756	**146**	Organic peroxides, mixtures
2757	**151**	Carbamate pesticide, solid, poisonous
2757	**151**	Carbamate pesticide, solid, toxic
2757	**151**	Carbaryl
2757	**151**	Carbofuran
2757	**151**	Mexacarbate
2758	**131**	Carbamate pesticide, liquid, flammable, poisonous
2758	**131**	Carbamate pesticide, liquid, flammable, toxic
2759	**151**	Arsenical pesticide, solid, poisonous
2759	**151**	Arsenical pesticide, solid, toxic
2760	**131**	Arsenical pesticide, liquid, flammable, poisonous
2760	**131**	Arsenical pesticide, liquid, flammable, toxic
2761	**151**	Aldrin, solid
2761	**151**	Aldrin mixture, dry

ID No.	Guide No.	Name of Material
2761	**151**	DDT
2761	**151**	Dichlorodiphenyltrichloroethane (DDT)
2761	**151**	Dieldrin
2761	**151**	Endosulfan
2761	**151**	Lindane
2761	**151**	Organochlorine pesticide, solid, poisonous
2761	**151**	Organochlorine pesticide, solid, toxic
2761	**151**	TDE (1,1-Dichloro-2,2-bis-(p-chlorophenyl)ethane)
2761	**151**	Toxaphene
2762	**131**	Aldrin, liquid
2762	**131**	Aldrin mixture, liquid
2762	**131**	Organochlorine pesticide, liquid, flammable, poisonous
2762	**131**	Organochlorine pesticide, liquid, flammable, toxic
2763	**151**	Triazine pesticide, solid, poisonous
2763	**151**	Triazine pesticide, solid, toxic
2764	**131**	Triazine pesticide, liquid, flammable, poisonous
2764	**131**	Triazine pesticide, liquid, flammable, toxic
2765	**152**	2,4-Dichlorophenoxyacetic acid
2765	**152**	Phenoxy pesticide, solid, poisonous
2765	**152**	Phenoxy pesticide, solid, toxic
2765	**152**	2,4,5-Trichlorophenoxyacetic acid
2765	**152**	2,4,5-Trichlorophenoxy-propionic acid
2766	**131**	Phenoxy pesticide, liquid, flammable, poisonous
2766	**131**	Phenoxy pesticide, liquid, flammable, toxic
2767	**151**	Phenyl urea pesticide, solid, poisonous
2767	**151**	Phenyl urea pesticide, solid, toxic
2768	**131**	Phenyl urea pesticide, liquid, flammable, poisonous
2768	**131**	Phenyl urea pesticide, liquid, flammable, toxic
2769	**151**	Benzoic derivative pesticide, solid, poisonous
2769	**151**	Benzoic derivative pesticide, solid, toxic
2770	**131**	Benzoic derivative pesticide, liquid, flammable, poisonous
2770	**131**	Benzoic derivative pesticide, liquid, flammable, toxic
2771	**151**	Dithiocarbamate pesticide, solid, poisonous
2771	**151**	Dithiocarbamate pesticide, solid, toxic
2771	**151**	Thiocarbamate pesticide, solid, poisonous
2771	**151**	Thiocarbamate pesticide, solid, toxic
2771	**151**	Thiram
2772	**131**	Dithiocarbamate pesticide, liquid, flammable, poisonous
2772	**131**	Dithiocarbamate pesticide, liquid, flammable, toxic
2772	**131**	Thiocarbamate pesticide, liquid, flammable, poisonous
2772	**131**	Thiocarbamate pesticide, liquid, flammable, toxic
2773	**151**	Phthalimide derivative pesticide, solid, poisonous

ID No.	Guide No.	Name of Material
2773	**151**	Phthalimide derivative pesticide, solid, toxic
2774	**131**	Phthalimide derivative pesticide, liquid, flammable, poisonous
2774	**131**	Phthalimide derivative pesticide, liquid, flammable, toxic
2775	**151**	Copper based pesticide, solid, poisonous
2775	**151**	Copper based pesticide, solid, toxic
2776	**131**	Copper based pesticide, liquid, flammable, poisonous
2776	**131**	Copper based pesticide, liquid, flammable, toxic
2777	**151**	Mercury based pesticide, solid, poisonous
2777	**151**	Mercury based pesticide, solid, toxic
2778	**131**	Mercury based pesticide, liquid, flammable, poisonous
2778	**131**	Mercury based pesticide, liquid, flammable, toxic
2779	**153**	Substituted nitrophenol pesticide, solid, poisonous
2779	**153**	Substituted nitrophenol pesticide, solid, toxic
2780	**131**	Substituted nitrophenol pesticide, liquid, flammable, poisonous
2780	**131**	Substituted nitrophenol pesticide, liquid, flammable, toxic
2781	**151**	Bipyridilium pesticide, solid, poisonous
2781	**151**	Bipyridilium pesticide, solid, toxic
2782	**131**	Bipyridilium pesticide, liquid, flammable, poisonous
2782	**131**	Bipyridilium pesticide, liquid, flammable, toxic
2783	**152**	Azinphos methyl
2783	**152**	Chlorpyrifos
2783	**152**	Coumaphos
2783	**152**	Diazinon
2783	**152**	Dichlorvos
2783	**152**	Disulfoton
2783	**152**	Ethion
2783	**152**	Hexaethyl tetraphosphate mixture, liquid
2783	**152**	Methyl parathion, liquid
2783	**152**	Methyl parathion, mixture, dry
2783	**152**	Methyl parathion, solid
2783	**152**	Mevinphos
2783	**152**	Organic phosphate, dry
2783	**152**	Organic phosphate, solid
2783	**152**	Organic phosphate compound, dry
2783	**152**	Organic phosphate compound, solid
2783	**152**	Organic phosphorus compound, dry
2783	**152**	Organic phosphorus compound, solid
2783	**152**	Organophosphorus pesticide, solid, poisonous
2783	**152**	Organophosphorus pesticide, solid, toxic
2783	**152**	Parathion
2783	**152**	Parathion mixture, dry
2783	**152**	Parathion mixture, liquid
2783	**152**	Tetraethyl pyrophosphate, liquid

ID No.	Guide No.	Name of Material
2783	**152**	Tetraethyl pyrophosphate, solid
2783	**152**	Tetraethyl pyrophosphate mixture, dry
2783	**152**	Trichlorfon
2784	**131**	Organophosphorus pesticide, liquid, flammable, poisonous
2784	**131**	Organophosphorus pesticide, liquid, flammable, toxic
2785	**152**	4-Thiapentanal
2785	**152**	Thia-4-pentanal
2786	**153**	Organotin pesticide, solid, poisonous
2786	**153**	Organotin pesticide, solid, toxic
2787	**131**	Organotin pesticide, liquid, flammable, poisonous
2787	**131**	Organotin pesticide, liquid, flammable, toxic
2788	**153**	Organotin compound, liquid, n.o.s.
2789	**132**	Acetic acid, glacial
2789	**132**	Acetic acid, solution, more than 80% acid
2790	**153**	Acetic acid, solution, more than 10% but not more than 80% acid
2793	**170**	Ferrous metal borings, shavings, turnings or cuttings
2793	**170**	Steel swarf
2794	**154**	Batteries, wet, filled with acid
2794	**154**	Battery
2795	**154**	Batteries, wet, filled with alkali
2795	**154**	Battery
2796	**157**	Battery fluid, acid
2796	**157**	Battery fluid, acid, with battery
2796	**157**	Battery fluid, acid, with electronic equipment or actuating device
2796	**157**	Sulfuric acid, with not more than 51% acid
2796	**157**	Sulphuric acid, with not more than 51% acid
2797	**154**	Battery fluid, alkali
2797	**154**	Battery fluid, alkali, with battery
2797	**154**	Battery fluid, alkali, with electronic equipment or actuating device
2798	**137**	Benzene phosphorus dichloride
2798	**137**	Phenylphosphorus dichloride
2799	**137**	Benzene phosphorus thiodichloride
2799	**137**	Phenylphosphorus thiodichloride
2800	**154**	Batteries, wet, non-spillable
2801	**154**	Coal tar dye, liquid
2801	**154**	Dye, liquid, corrosive, n.o.s.
2801	**154**	Dye intermediate, liquid, corrosive, n.o.s.
2802	**154**	Copper chloride
2803	**172**	Gallium
2805	**138**	Lithium hydride, fused solid
2806	**138**	Lithium nitride
2807	**171**	Magnetized material
2809	**172**	Mercury
2809	**172**	Mercury, metallic
2809	**172**	Mercury metal
2810	**153**	Bis-(2-chloroethyl) ethylamine
2810	**153**	Bis-(2-chloroethyl) methylamine
2810	**153**	Bis-(2-chloroethyl) sulfide
2810	**153**	Bis-(2-chloroethyl) sulphide
2810	**153**	Buzz
2810	**153**	BZ

ID No.	Guide No.	Name of Material
2810	**153**	o-Chlorobenzylidene malononitrile
2810	**153**	Compound, tree or weed killing, liquid (toxic)
2810	**153**	CS
2810	**153**	DC
2810	**153**	Dichloro-(2-chlorovinyl) arsine
2810	**153**	Diphenylcyanoarsine
2810	**153**	Drugs, liquid, n.o.s.
2810	**153**	O-Ethyl S-(2-diisopropylaminoethyl) methylphosphonothiolate
2810	**153**	Ethyl N,N-dimethylphosphoramidocyanidate
2810	**153**	GA
2810	**153**	GB
2810	**153**	GD
2810	**153**	GF
2810	**153**	H
2810	**153**	HD
2810	**153**	HL
2810	**153**	HN-1 (nitrogen mustard)
2810	**153**	HN-2
2810	**153**	HN-3
2810	**153**	Isopropyl methylphosphonofluoridate
2810	**153**	L (Lewisite)
2810	**153**	Lewisite
2810	**153**	Medicines, poisonous, liquid, n.o.s.
2810	**153**	Medicines, toxic, liquid, n.o.s.
2810	**153**	Mustard
2810	**153**	Mustard Lewisite
2810	**153**	Poison B, liquid, n.o.s.
2810	**153**	Pinacolyl methylphosphonofluoridate
2810	**153**	Poisonous liquid, n.o.s.
2810	**153**	Poisonous liquid, n.o.s. (Inhalation Hazard Zone A)
2810	**153**	Poisonous liquid, n.o.s. (Inhalation Hazard Zone B)
2810	**153**	Poisonous liquid, organic, n.o.s.
2810	**153**	Poisonous liquid, organic, n.o.s. (Inhalation Hazard Zone A)
2810	**153**	Poisonous liquid, organic, n.o.s. (Inhalation Hazard Zone B)
2810	**153**	Sarin
2810	**153**	Soman
2810	**153**	Tabun
2810	**153**	Thickened GD
2810	**153**	Toxic liquid, n.o.s.
2810	**153**	Toxic liquid, n.o.s. (Inhalation Hazard Zone A)
2810	**153**	Toxic liquid, n.o.s. (Inhalation Hazard Zone B)
2810	**153**	Toxic liquid, organic, n.o.s.
2810	**153**	Toxic liquid, organic, n.o.s. (Inhalation Hazard Zone A)
2810	**153**	Toxic liquid, organic, n.o.s. (Inhalation Hazard Zone B)
2810	**153**	Tris-(2-chloroethyl) amine
2810	**153**	VX
2811	**154**	CX
2811	**154**	Drugs, solid, n.o.s.
2811	**154**	Flue dust, poisonous
2811	**154**	Lead fluoride
2811	**154**	Medicines, poisonous, solid, n.o.s.
2811	**154**	Medicines, toxic, solid, n.o.s.
2811	**154**	Phosgene oxime

ID No.	Guide No.	Name of Material
2811	**154**	Poison B, solid, n.o.s.
2811	**154**	Poisonous solid, n.o.s.
2811	**154**	Poisonous solid, organic, n.o.s.
2811	**154**	Selenium oxide
2811	**154**	Toxic solid, n.o.s.
2811	**154**	Toxic solid, organic, n.o.s.
2812	**154**	Sodium aluminate, solid
2813	**138**	Lithium acetylide-Ethylenediamine complex
2813	**138**	Substances, which in contact with water emit flammable gases, solid, n.o.s.
2813	**138**	Water-reactive solid, n.o.s.
2813	**138**	Water-reactive substances, solid, n.o.s.
2814	**158**	Etiologic agent, n.o.s.
2814	**158**	Infectious substance, affecting humans
2815	**153**	N-Aminoethylpiperazine
2817	**154**	Ammonium bifluoride, solution
2817	**154**	Ammonium hydrogendifluoride, solution
2817	**154**	Ammonium hydrogen fluoride, solution
2818	**154**	Ammonium polysulfide, solution
2818	**154**	Ammonium polysulphide, solution
2819	**153**	Amyl acid phosphate
2820	**153**	Butyric acid
2821	**153**	Phenol, liquid
2821	**153**	Phenol solution
2822	**153**	2-Chloropyridine
2823	**153**	Crotonic acid
2823	**153**	Crotonic acid, liquid
2823	**153**	Crotonic acid, solid

ID No.	Guide No.	Name of Material
2826	**155**	Ethyl chlorothioformate
2829	**153**	Caproic acid
2829	**153**	Hexanoic acid
2830	**139**	Lithium ferrosilicon
2831	**160**	1,1,1-Trichloroethane
2834	**154**	Phosphorous acid
2834	**154**	Phosphorous acid, ortho
2835	**138**	Sodium aluminum hydride
2837	**154**	Bisulfates, aqueous solution
2837	**154**	Bisulphates, aqueous solution
2837	**154**	Sodium bisulfate, solution
2837	**154**	Sodium bisulphate, solution
2837	**154**	Sodium hydrogen sulfate, solution
2837	**154**	Sodium hydrogen sulphate, solution
2838	**129P**	Vinyl butyrate, inhibited
2839	**153**	Aldol
2840	**129**	Butyraldoxime
2841	**131**	Di-n-amylamine
2842	**129**	Nitroethane
2844	**138**	Calcium manganese silicon
2845	**135**	Ethyl phosphonous dichloride, anhydrous
2845	**135**	Methyl phosphonous dichloride
2845	**135**	Pyrophoric liquid, n.o.s.
2845	**135**	Pyrophoric liquid, organic, n.o.s.
2846	**135**	Pyrophoric solid, n.o.s.
2846	**135**	Pyrophoric solid, organic, n.o.s.
2849	**153**	3-Chloropropanol-1
2850	**128**	Propylene tetramer
2851	**157**	Boron trifluoride, dihydrate
2852	**113**	Dipicryl sulfide, wetted with not less than 10% water

ID No.	Guide No.	Name of Material
2852	**113**	Dipicryl sulphide, wetted with not less than 10% water
2853	**151**	Magnesium fluorosilicate
2853	**151**	Magnesium silicofluoride
2854	**151**	Ammonium fluorosilicate
2854	**151**	Ammonium silicofluoride
2855	**151**	Zinc fluorosilicate
2855	**151**	Zinc silicofluoride
2856	**151**	Fluorosilicates, n.o.s.
2856	**151**	Silicofluorides, n.o.s.
2857	**126**	Refrigerating machines, containing Ammonia solutions (UN2073)
2857	**126**	Refrigerating machines, containing Ammonia solutions (UN2672)
2857	**126**	Refrigerating machines, containing non-flammable, liquefied gas
2857	**126**	Refrigerating machines, containing non-flammable, non-poisonous, liquefied gas
2857	**126**	Refrigerating machines, containing non-flammable, non-poisonous, non-corrosive, liquefied gas
2857	**126**	Refrigerating machines, containing non-flammable, non-toxic, liquefied gas
2857	**126**	Refrigerating machines, containing non-flammable, non-toxic, non-corrosive, liquefied gas
2858	**170**	Zirconium, dry, coiled wire, finished metal sheets or strips
2859	**154**	Ammonium metavanadate
2860	**154**	Vanadium trioxide
2861	**151**	Ammonium polyvanadate
2862	**151**	Vanadium pentoxide
2863	**154**	Sodium ammonium vanadate
2864	**151**	Potassium metavanadate
2865	**154**	Hydroxylamine sulfate
2865	**154**	Hydroxylamine sulphate
2869	**157**	Titanium trichloride mixture
2870	**135**	Aluminum borohydride
2870	**135**	Aluminum borohydride in devices
2871	**170**	Antimony powder
2872	**159**	Dibromochloropropanes
2873	**153**	Dibutylaminoethanol
2874	**153**	Furfuryl alcohol
2875	**151**	Hexachlorophene
2876	**153**	Resorcinol
2878	**170**	Titanium sponge granules
2878	**170**	Titanium sponge powders
2879	**157**	Selenium oxychloride
2880	**140**	Calcium hypochlorite, hydrated, with not less than 5.5% but not more than 10% water
2880	**140**	Calcium hypochlorite, hydrated mixture, with not less than 5.5% but not more than 10% water
2881	**135**	Metal catalyst, dry
2881	**135**	Nickel catalyst, dry
2883	**145**	2,2-Di-(tert-butylperoxy)-propane
2884	**145**	2,2-Di-(tert-butylperoxy)-propane
2885	**145**	1,1-Di-(tert-butylperoxy)-cyclohexane
2886	**148**	tert-Butyl peroxy-2-ethylhexanoate, with 2,2-Di-(tert-butylperoxy)butane

ID No.	Guide No.	Name of Material
2887	145	tert-Butyl peroxy-2-ethylhexanoate, with 2,2-Di-(tert-butylperoxy)butane
2888	148	tert-Butyl peroxy-2-ethylhexanoate, not more than 50%, with phlegmatizer
2889	148	Diisotridecyl peroxydicarbonate
2890	145	tert-Butyl peroxybenzoate
2891	148	tert-Amyl peroxyneodecanoate
2892	148	Dimyristyl peroxydicarbonate, not more than 42%, in water
2893	145	Lauroyl peroxide, not more than 42%, stable dispersion, in water
2894	148	Di-(4-tert-butylcyclohexyl)-peroxydicarbonate
2895	148	Dicetyl peroxydicarbonate, not more than 42%, in water
2896	147	Cyclohexanone peroxide, not more than 72% as a paste
2897	145	1,1-Di-(tert-butylperoxy)-cyclohexane
2898	148	tert-Amyl peroxy-2-ethylhexanoate
2899	148	Organic peroxides, n.o.s. (including trial quantities)
2900	158	Infectious substance, affecting animals only
2901	124	Bromine chloride
2902	151	Allethrin
2902	151	Insecticide, liquid, poisonous, n.o.s.
2902	151	Pesticide, liquid, poisonous, n.o.s.
2902	151	Pesticide, liquid, toxic, n.o.s.
2903	131	Pesticide, liquid, poisonous, flammable, n.o.s.
2903	131	Pesticide, liquid, toxic, flammable, n.o.s.
2904	154	Chlorophenates, liquid
2904	154	Chlorophenolates, liquid
2904	154	Phenolates, liquid
2905	154	Chlorophenates, solid
2905	154	Chlorophenolates, solid
2905	154	Phenolates, solid
2906	127	Triisocyanatoisocyanurate of Isophoronediisocyanate, solution (70%)
2907	133	Isosorbide dinitrate mixture
2908	161	Radioactive material, empty packages
2908	161	Radioactive material, excepted package, empty packaging
2909	161	Radioactive material, articles manufactured from depleted Uranium
2909	161	Radioactive material, articles manufactured from natural Thorium
2909	161	Radioactive material, articles manufactured from natural Uranium
2909	161	Radioactive material, excepted package, articles manufactured from depleted Uranium
2909	161	Radioactive material, excepted package, articles manufactured from natural Thorium
2909	161	Radioactive material, excepted package, articles manufactured from natural Uranium

ID No.	Guide No.	Name of Material
2910	161	Radioactive material, excepted package, articles manufactured from depleted Uranium
2910	161	Radioactive material, excepted package, articles manufactured from natural Thorium
2910	161	Radioactive material, excepted package, articles manufactured from natural Uranium
2910	161	Radioactive material, excepted package, empty packaging
2910	161	Radioactive material, excepted package, instruments or articles
2910	161	Radioactive material, excepted package, limited quantity of material
2910	161	Radioactive material, limited quantity, n.o.s.
2911	161	Radioactive material, excepted package, instruments or articles
2911	161	Radioactive material, instruments or articles
2912	162	Radioactive material, low specific activity (LSA), n.o.s.
2912	162	Radioactive material, low specific activity (LSA-I)
2913	162	Radioactive material, surface contaminated objects (SCO)
2913	162	Radioactive material, surface contaminated objects (SCO-I)
2913	162	Radioactive material, surface contaminated objects (SCO-II)
2915	163	Radioactive material, Type A package
2916	163	Radioactive material, Type B(U) package
2917	163	Radioactive material, Type B(M) package
2918	165	Radioactive material, fissile, n.o.s.
2919	163	Radioactive material, transported under special arrangement
2920	132	Corrosive liquid, flammable, n.o.s.
2920	132	Dichlorobutene
2921	134	Corrosive solid, flammable, n.o.s.
2922	154	Corrosive liquid, poisonous, n.o.s.
2922	154	Corrosive liquid, toxic, n.o.s.
2922	154	Sodium hydrosulfide, solution
2922	154	Sodium hydrosulphide, solution
2923	154	Corrosive solid, poisonous, n.o.s.
2923	154	Corrosive solid, toxic, n.o.s.
2923	154	Sodium hydrosulfide, solid
2923	154	Sodium hydrosulphide, solid
2924	132	Dichlorobutene
2924	132	Flammable liquid, corrosive, n.o.s
2925	134	Flammable solid, corrosive, n.o.s.
2925	134	Flammable solid, corrosive, organic, n.o.s.
2926	134	Flammable solid, poisonous, n.o.s.
2926	134	Flammable solid, poisonous, organic, n.o.s.
2926	134	Flammable solid, toxic, organic, n.o.s.
2927	154	Ethyl phosphonothioic dichloride, anhydrous
2927	154	Ethyl phosphorodichloridate
2927	154	Poisonous liquid, corrosive, n.o.s.

ID No.	Guide No.	Name of Material
2927	154	Poisonous liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)
2927	154	Poisonous liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)
2927	154	Toxic liquid, corrosive, organic, n.o.s.
2927	154	Toxic liquid, corrosive, organic, n.o.s. (Inhalation Hazard Zone A)
2927	154	Toxic liquid, corrosive, organic, n.o.s. (Inhalation Hazard Zone B)
2928	154	Poisonous solid, corrosive, n.o.s.
2928	154	Toxic solid, corrosive, organic, n.o.s.
2929	131	Chloropicrin mixture, flammable
2929	131	Poisonous liquid, flammable, n.o.s.
2929	131	Poisonous liquid, flammable, n.o.s. (Inhalation Hazard Zone A)
2929	131	Poisonous liquid, flammable, n.o.s. (Inhalation Hazard Zone B)
2929	131	Poisonous liquid, flammable, organic, n.o.s.
2929	131	Poisonous liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone A)
2929	131	Poisonous liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone B)
2929	131	Toxic liquid, flammable, n.o.s.
2929	131	Toxic liquid, flammable, n.o.s. (Inhalation Hazard Zone A)
2929	131	Toxic liquid, flammable, n.o.s. (Inhalation Hazard Zone B)
2929	131	Toxic liquid, flammable, organic, n.o.s.
2929	131	Toxic liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone A)
2929	131	Toxic liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone B)
2930	134	Poisonous solid, flammable, n.o.s.
2930	134	Poisonous solid, flammable, organic, n.o.s.
2930	134	Toxic solid, flammable, n.o.s.
2930	134	Toxic solid, flammable, organic, n.o.s.
2931	151	Vanadyl sulfate
2931	151	Vanadyl sulphate
2933	132	Methyl 2-chloropropionate
2934	132	Isopropyl 2-chloropropionate
2935	132	Ethyl 2-chloropropionate
2936	153	Thiolactic acid
2937	153	alpha-Methylbenzyl alcohol
2937	153	Methylbenzyl alcohol (alpha)
2938	152	Methyl benzoate
2940	135	Cyclooctadiene phosphines
2940	135	9-Phosphabicyclononanes
2941	153	Fluoroanilines
2942	153	2-Trifluoromethylaniline
2943	129	Tetrahydrofurfurylamine
2945	132	N-Methylbutylamine
2946	153	2-Amino-5-diethylaminopentane
2947	155	Isopropyl chloroacetate
2948	153	3-Trifluoromethylaniline
2949	154	Sodium hydrosulfide, with not less than 25% water of crystallization

ID No.	Guide No.	Name of Material
2949	**154**	Sodium hydrosulphide, with not less than 25% water of crystallization
2950	**138**	Magnesium granules, coated
2951	**149**	Diphenyloxide-4,4'-disulfohydrazide
2951	**149**	Diphenyloxide-4,4'-disulphohydrazide
2952	**150**	Azodiisobutyronitrile
2953	**150**	2,2'-Azodi-(2,4-dimethylvaleronitrile)
2954	**149**	1,1'-Azodi-(hexahydrobenzonitrile)
2955	**150**	2,2'-Azodi-(2,4-dimethyl-4-methoxyvaleronitrile)
2956	**149**	5-tert-Butyl-2,4,6-trinitro-m-xylene
2956	**149**	Musk xylene
2965	**139**	Boron trifluoride dimethyl etherate
2966	**153**	Thioglycol
2967	**154**	Sulfamic acid
2967	**154**	Sulphamic acid
2968	**135**	Maneb, stabilized
2968	**135**	Maneb preparation, stabilized
2969	**171**	Castor beans, meal, pomace or flake
2970	**149**	Benzene sulfohydrazide
2970	**149**	Benzene sulphohydrazide
2971	**149**	Benzene-1,3-disulfohydrazide
2971	**149**	Benzene-1,3-disulphohydrazide
2972	**149**	N,N'-Dinitrosopentamethylene tetramine
2973	**149**	N,N'-Dinitroso-N,N'-dimethyl terephthalamide
2974	**164**	Radioactive material, special form, n.o.s.
2975	**162**	Thorium metal, pyrophoric
2976	**162**	Thorium nitrate, solid
2977	**166**	Radioactive material, Uranium hexafluoride, fissile
2977	**166**	Uranium hexafluoride, fissile containing more than 1% Uranium-235
2978	**166**	Radioactive material, Uranium hexafluoride, non fissile or fissile-excepted
2978	**166**	Uranium hexafluoride, fissile-excepted
2978	**166**	Uranium hexafluoride, low specific activity
2978	**166**	Uranium hexafluoride, non-fissile
2979	**162**	Uranium metal, pyrophoric
2980	**162**	Uranyl nitrate, hexahydrate, solution
2981	**162**	Uranyl nitrate, solid
2982	**163**	Radioactive material, n.o.s.
2983	**129P**	Ethylene oxide and Propylene oxide mixture, with not more than 30% Ethylene oxide
2983	**129P**	Propylene oxide and Ethylene oxide mixture, with not more than 30% Ethylene oxide
2984	**140**	Hydrogen peroxide, aqueous solution, with not less than 8% but less than 20% Hydrogen peroxide
2985	**155**	Chlorosilanes, flammable, corrosive, n.o.s.
2985	**155**	Chlorosilanes, n.o.s.
2986	**155**	Chlorosilanes, corrosive, flammable, n.o.s.

ID No.	Guide No.	Name of Material
2986	**155**	Chlorosilanes, n.o.s.
2987	**156**	Chlorosilanes, corrosive, n.o.s.
2987	**156**	Chlorosilanes, n.o.s.
2988	**139**	Chlorosilanes, n.o.s.
2988	**139**	Chlorosilanes, water-reactive, flammable, corrosive, n.o.s.
2989	**133**	Lead phosphite, dibasic
2990	**171**	Aircraft evacuation slides
2990	**171**	Life-saving appliances, self-inflating
2991	**131**	Carbamate pesticide, liquid, poisonous, flammable
2991	**131**	Carbamate pesticide, liquid, toxic, flammable
2992	**151**	Carbamate pesticide, liquid, poisonous
2992	**151**	Carbamate pesticide, liquid, toxic
2993	**131**	Arsenical pesticide, liquid, poisonous, flammable
2993	**131**	Arsenical pesticide, liquid, toxic, flammable
2994	**151**	Arsenical pesticide, liquid, poisonous
2994	**151**	Arsenical pesticide, liquid, toxic
2995	**131**	Organochlorine pesticide, liquid, poisonous, flammable
2995	**131**	Organochlorine pesticide, liquid, toxic, flammable
2996	**151**	Organochlorine pesticide, liquid, poisonous
2996	**151**	Organochlorine pesticide, liquid, toxic
2997	**131**	Triazine pesticide, liquid, poisonous, flammable
2997	**131**	Triazine pesticide, liquid, toxic, flammable

ID No.	Guide No.	Name of Material
2998	**151**	Triazine pesticide, liquid, poisonous
2998	**151**	Triazine pesticide, liquid, toxic
2999	**131**	Phenoxy pesticide, liquid, poisonous, flammable
2999	**131**	Phenoxy pesticide, liquid, toxic, flammable
3000	**152**	Phenoxy pesticide, liquid, poisonous
3000	**152**	Phenoxy pesticide, liquid, toxic
3001	**131**	Phenyl urea pesticide, liquid, poisonous, flammable
3001	**131**	Phenyl urea pesticide, liquid, toxic, flammable
3002	**151**	Phenyl urea pesticide, liquid, poisonous
3002	**151**	Phenyl urea pesticide, liquid, toxic
3003	**131**	Benzoic derivative pesticide, liquid, poisonous, flammable
3003	**131**	Benzoic derivative pesticide, liquid, toxic, flammable
3004	**151**	Benzoic derivative pesticide, liquid, poisonous
3004	**151**	Benzoic derivative pesticide, liquid, toxic
3005	**131**	Dithiocarbamate pesticide, liquid, poisonous, flammable
3005	**131**	Dithiocarbamate pesticide, liquid, toxic, flammable
3005	**131**	Thiocarbamate pesticide, liquid, poisonous, flammable
3005	**131**	Thiocarbamate pesticide, liquid, toxic, flammable
3006	**151**	Dithiocarbamate pesticide, liquid, poisonous
3006	**151**	Dithiocarbamate pesticide, liquid, toxic

ID No.	Guide No.	Name of Material
3006	**151**	Thiocarbamate pesticide, liquid, poisonous
3006	**151**	Thiocarbamate pesticide, liquid, toxic
3007	**131**	Phthalimide derivative pesticide, liquid, poisonous, flammable
3007	**131**	Phthalimide derivative pesticide, liquid, toxic, flammable
3008	**151**	Phthalimide derivative pesticide, liquid, poisonous
3008	**151**	Phthalimide derivative pesticide, liquid, toxic
3009	**131**	Copper based pesticide, liquid, poisonous, flammable
3009	**131**	Copper based pesticide, liquid, toxic, flammable
3010	**151**	Copper based pesticide, liquid, poisonous
3010	**151**	Copper based pesticide, liquid, toxic
3011	**131**	Mercury based pesticide, liquid, poisonous, flammable
3011	**131**	Mercury based pesticide, liquid, toxic, flammable
3012	**151**	Mercury based pesticide, liquid, poisonous
3012	**151**	Mercury based pesticide, liquid, toxic
3013	**131**	Substituted nitrophenol pesticide, liquid, poisonous, flammable
3013	**131**	Substituted nitrophenol pesticide, liquid, toxic, flammable
3014	**153**	Substituted nitrophenol pesticide, liquid, poisonous
3014	**153**	Substituted nitrophenol pesticide, liquid, toxic
3015	**131**	Bipyridilium pesticide, liquid, poisonous, flammable
3015	**131**	Bipyridilium pesticide, liquid, toxic, flammable
3016	**151**	Bipyridilium pesticide, liquid, poisonous
3016	**151**	Bipyridilium pesticide, liquid, toxic
3017	**131**	Organophosphorus pesticide, liquid, poisonous, flammable
3017	**131**	Organophosphorus pesticide, liquid, toxic, flammable
3018	**152**	Methyl parathion, liquid
3018	**152**	Organophosphorus pesticide, liquid, poisonous
3018	**152**	Organophosphorus pesticide, liquid, toxic
3018	**152**	Tetraethyl pyrophosphate, liquid
3019	**131**	Organotin pesticide, liquid, poisonous, flammable
3019	**131**	Organotin pesticide, liquid, toxic, flammable
3020	**153**	Organotin pesticide, liquid, poisonous
3020	**153**	Organotin pesticide, liquid, toxic
3021	**131**	Pesticide, liquid, flammable, poisonous
3021	**131**	Pesticide, liquid, flammable, toxic
3022	**127P**	1,2-Butylene oxide, stabilized
3023	**131**	2-Methyl-2-hepthanethiol
3023	**131**	tert-Octyl mercaptan
3024	**131**	Coumarin derivative pesticide, liquid, flammable, poisonous

ID No.	Guide No.	Name of Material
3024	**131**	Coumarin derivative pesticide, liquid, flammable, toxic
3025	**131**	Coumarin derivative pesticide, liquid, poisonous, flammable
3025	**131**	Coumarin derivative pesticide, liquid, toxic, flammable
3026	**151**	Coumarin derivative pesticide, liquid, poisonous
3026	**151**	Coumarin derivative pesticide, liquid, toxic
3027	**151**	Coumarin derivative pesticide, solid, poisonous
3027	**151**	Coumarin derivative pesticide, solid, toxic
3028	**154**	Batteries, dry, containing Potassium hydroxide, solid
3030	**150**	2,2'-Azodi-(2-methyl-butyronitrile)
3031	**149**	Self-reactive substances, samples, n.o.s.
3032	**149**	Self-reactive substances, trial quantities, n.o.s.
3033	**149**	3-Chloro-4-diethylamino-benzenediazonium zinc chloride
3034	**149**	4-Dipropylaminobenzene-diazonium zinc chloride
3035	**150**	3-(2-Hydroxyethoxy)-4-pyrrolidin-1-yl benzene-diazonium zinc chloride
3036	**150**	2,5-Diethoxy-4-morpholino-benzenediazonium zinc chloride
3037	**149**	4-[Benzyl(ethyl)amino]-3-ethoxybenzenediazonium zinc chloride
3038	**150**	4-[Benzyl(methyl)amino]-3-ethoxybenzenediazonium zinc chloride
3039	**150**	4-Dimethylamino-6-(2-dimethyl-aminoethoxy)toluene-2-diazonium zinc chloride
3040	**149**	Sodium 2-diazo-1-naphthol-4-sulfonate
3040	**149**	Sodium 2-diazo-1-naphthol-4-sulphonate
3041	**149**	Sodium 2-diazo-1-naphthol-5-sulfonate
3041	**149**	Sodium 2-diazo-1-naphthol-5-sulphonate
3042	**149**	2-Diazo-1-naphthol-4-sulfochloride
3042	**149**	2-Diazo-1-naphthol-4-sulphochloride
3043	**149**	2-Diazo-1-naphthol-5-sulfochloride
3043	**149**	2-Diazo-1-naphthol-5-sulphochloride
3048	**157**	Aluminum phosphide pesticide
3049	**138**	Metal alkyl halides, n.o.s.
3049	**138**	Metal alkyl halides, water-reactive, n.o.s.
3049	**138**	Metal aryl halides, n.o.s.
3049	**138**	Metal aryl halides, water-reactive, n.o.s.
3050	**138**	Metal alkyl hydrides, n.o.s.
3050	**138**	Metal alkyl hydrides, water-reactive, n.o.s.
3050	**138**	Metal aryl hydrides, n.o.s.
3050	**138**	Metal aryl hydrides, water-reactive, n.o.s.
3051	**135**	Aluminum alkyls
3052	**135**	Aluminum alkyl halides
3053	**135**	Magnesium alkyls
3054	**131**	Cyclohexanethiol

ID No.	Guide No.	Name of Material
3054	**131**	Cyclohexyl mercaptan
3055	**154**	2-(2-Aminoethoxy)ethanol
3056	**129**	n-Heptaldehyde
3057	**125**	Trifluoroacetyl chloride
3064	**127**	Nitroglycerin, solution in alcohol, with more than 1% but not more than 5% Nitroglycerin
3065	**127**	Alcoholic beverages
3066	**153**	Paint (corrosive)
3066	**153**	Paint related material (corrosive)
3070	**126**	Dichlorodifluoromethane and Ethylene oxide mixture, with not more than 12.5% Ethylene oxide
3070	**126**	Dichlorodifluoromethane and Ethylene oxide mixtures, with not more than 12% Ethylene oxide
3070	**126**	Ethylene oxide and Dichlorodifluoromethane mixture, with not more than 12.5% Ethylene oxide
3070	**126**	Ethylene oxide and Dichlorodifluoromethane mixtures, with not more than 12% Ethylene oxide
3071	**131**	Mercaptan mixture, liquid, poisonous, flammable, n.o.s.
3071	**131**	Mercaptan mixture, liquid, toxic, flammable, n.o.s.
3071	**131**	Mercaptan mixtures, liquid, n.o.s.
3071	**131**	Mercaptans, liquid, n.o.s.
3071	**131**	Mercaptans, liquid, poisonous, flammable, n.o.s.

ID No.	Guide No.	Name of Material
3071	**131**	Mercaptans, liquid, toxic, flammable, n.o.s.
3072	**171**	Aircraft survival kits
3072	**171**	Life-saving appliances, not self-inflating
3073	**131P**	Vinylpyridines, inhibited
3076	**138**	Aluminum alkyl hydrides
3077	**171**	Environmentally hazardous substances, solid, n.o.s.
3077	**171**	Hazardous waste, solid, n.o.s.
3077	**171**	Other regulated substances, solid, n.o.s.
3078	**138**	Cerium, turnings or gritty powder
3079	**131P**	Methacrylonitrile, inhibited
3080	**155**	Isocyanate solution, poisonous, flammable, n.o.s.
3080	**155**	Isocyanate solution, toxic, flammable, n.o.s.
3080	**155**	Isocyanate solutions, n.o.s.
3080	**155**	Isocyanates, n.o.s.
3080	**155**	Isocyanates, poisonous, flammable, n.o.s.
3080	**155**	Isocyanates, toxic, flammable, n.o.s.
3082	**171**	Environmentally hazardous substances, liquid, n.o.s.
3082	**171**	Hazardous waste, liquid, n.o.s.
3082	**171**	Other regulated substances, liquid, n.o.s.
3083	**124**	Perchloryl fluoride
3084	**140**	Corrosive solid, oxidizing, n.o.s.
3085	**140**	Oxidizing solid, corrosive, n.o.s.
3085	**140**	Oxidizing substances, solid, corrosive, n.o.s.
3086	**141**	Poisonous solid, oxidizing, n.o.s.
3086	**141**	Toxic solid, oxidizing, n.o.s.

ID No.	Guide No.	Name of Material
3087	**141**	Oxidizing solid, poisonous, n.o.s.
3087	**141**	Oxidizing solid, toxic, n.o.s.
3087	**141**	Oxidizing substances, solid, poisonous, n.o.s.
3087	**141**	Oxidizing substances, solid, toxic, n.o.s.
3088	**135**	Self-heating solid, organic, n.o.s.
3088	**135**	Self-heating substances, solid, n.o.s.
3089	**170**	Metal powder, flammable, n.o.s.
3090	**138**	Lithium batteries
3090	**138**	Lithium batteries, liquid or solid cathode
3091	**138**	Lithium batteries contained in equipment
3091	**138**	Lithium batteries packed with equipment
3092	**129**	1-Methoxy-2-propanol
3093	**140**	Corrosive liquid, oxidizing, n.o.s.
3094	**138**	Corrosive liquid, water-reactive, n.o.s.
3094	**138**	Corrosive liquid, which in contact with water emits flammable gases, n.o.s.
3095	**136**	Corrosive solid, self-heating, n.o.s.
3096	**138**	Corrosive solid, water-reactive, n.o.s.
3096	**138**	Corrosive solid, which in contact with water emits flammable gases, n.o.s.
3097	**140**	Flammable solid, oxidizing, n.o.s.
3098	**140**	Oxidizing liquid, corrosive, n.o.s.
3098	**140**	Oxidizing substances, liquid, corrosive, n.o.s.
3099	**142**	Oxidizing liquid, poisonous, n.o.s.
3099	**142**	Oxidizing liquid, toxic, n.o.s.
3099	**142**	Oxidizing substances, liquid, poisonous, n.o.s.
3099	**142**	Oxidizing substances, liquid, toxic, n.o.s.
3100	**135**	Oxidizing solid, self-heating, n.o.s.
3100	**135**	Oxidizing substances, self-heating, n.o.s.
3100	**135**	Oxidizing substances, solid, self-heating, n.o.s.
3101	**146**	Organic peroxide type B, liquid
3102	**146**	Organic peroxide type B, solid
3103	**146**	Organic peroxide type C, liquid
3104	**146**	Organic peroxide type C, solid
3105	**145**	Organic peroxide type D, liquid
3106	**145**	Organic peroxide type D, solid
3107	**145**	Organic peroxide type E, liquid
3108	**145**	Organic peroxide type E, solid
3109	**145**	Organic peroxide type F, liquid
3110	**145**	Organic peroxide type F, solid
3111	**148**	Organic peroxide type B, liquid, temperature controlled
3112	**148**	Organic peroxide type B, solid, temperature controlled
3113	**148**	Organic peroxide type C, liquid, temperature controlled
3114	**148**	Organic peroxide type C, solid, temperature controlled
3115	**148**	Organic peroxide type D, liquid, temperature controlled
3116	**148**	Organic peroxide type D, solid, temperature controlled
3117	**148**	Organic peroxide type E, liquid, temperature controlled

ID No.	Guide No.	Name of Material
3118	**148**	Organic peroxide type E, solid, temperature controlled
3119	**148**	Organic peroxide type F, liquid, temperature controlled
3120	**148**	Organic peroxide type F, solid, temperature controlled
3121	**144**	Oxidizing solid, water-reactive, n.o.s.
3121	**144**	Oxidizing substances, solid, which in contact with water emit flammable gases, n.o.s.
3122	**142**	Poisonous liquid, oxidizing, n.o.s.
3122	**142**	Poisonous liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3122	**142**	Poisonous liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)
3122	**142**	Toxic liquid, oxidizing, n.o.s.
3122	**142**	Toxic liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3122	**142**	Toxic liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)
3123	**139**	Poisonous liquid, water-reactive, n.o.s.
3123	**139**	Poisonous liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)
3123	**139**	Poisonous liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)
3123	**139**	Poisonous liquid, which in contact with water emits flammable gases, n.o.s.
3123	**139**	Poisonous liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone A)
3123	**139**	Poisonous liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone B)
3123	**139**	Toxic liquid, water-reactive, n.o.s.
3123	**139**	Toxic liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)
3123	**139**	Toxic liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)
3123	**139**	Toxic liquid, which in contact with water emits flammable gases, n.o.s.
3123	**139**	Toxic liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone A)
3123	**139**	Toxic liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone B)
3124	**136**	Poisonous solid, self-heating, n.o.s.
3124	**136**	Toxic solid, self-heating, n.o.s.
3125	**139**	Poisonous solid, water-reactive, n.o.s.
3125	**139**	Poisonous solid, which in contact with water emits flammable gases, n.o.s.
3125	**139**	Toxic solid, water-reactive, n.o.s.
3125	**139**	Toxic solid, which in contact with water emits flammable gases, n.o.s.
3126	**136**	Self-heating solid, corrosive, organic, n.o.s.

ID No.	Guide No.	Name of Material
3126	**136**	Self-heating substance, solid, corrosive, n.o.s.
3127	**135**	Self-heating solid, oxidizing, n.o.s.
3127	**135**	Self-heating substances, solid, oxidizing, n.o.s.
3128	**136**	Self-heating solid, organic, poisonous, n.o.s.
3128	**136**	Self-heating solid, organic, toxic, n.o.s.
3128	**136**	Self-heating solid, poisonous, organic, n.o.s.
3128	**136**	Self-heating solid, toxic, organic, n.o.s.
3128	**136**	Self-heating substances, solid, poisonous, n.o.s.
3128	**136**	Self-heating substances, solid, toxic, n.o.s.
3129	**138**	Substances, which in contact with water emit flammable gases, liquid, corrosive, n.o.s.
3129	**138**	Water-reactive liquid, corrosive, n.o.s.
3129	**138**	Water-reactive substances, liquid, corrosive, n.o.s.
3130	**139**	Substances, which in contact with water emit flammable gases, liquid, poisonous, n.o.s.
3130	**139**	Substances, which in contact with water emit flammable gases, liquid, toxic, n.o.s.
3130	**139**	Water-reactive liquid, poisonous, n.o.s.
3130	**139**	Water-reactive liquid, toxic, n.o.s.
3130	**139**	Water-reactive substances, liquid, poisonous, n.o.s.
3130	**139**	Water-reactive substances, liquid, toxic, n.o.s.
3131	**138**	Substances, which in contact with water emit flammable gases, solid, corrosive, n.o.s.
3131	**138**	Water-reactive solid, corrosive, n.o.s.
3131	**138**	Water-reactive substances, solid, corrosive, n.o.s.
3132	**138**	Substances, which in contact with water emit flammable gases, solid, flammable, n.o.s.
3132	**138**	Water-reactive solid, flammable, n.o.s.
3132	**138**	Water-reactive substances, solid, flammable, n.o.s.
3133	**138**	Substances, which in contact with water emit flammable gases, solid, oxidizing, n.o.s.
3133	**138**	Water-reactive solid, oxidizing, n.o.s.
3133	**138**	Water-reactive substances, solid, oxidizing, n.o.s.
3134	**139**	Substances, which in contact with water emit flammable gases, solid, poisonous, n.o.s.
3134	**139**	Substances, which in contact with water emit flammable gases, solid, toxic, n.o.s.
3134	**139**	Water-reactive solid, poisonous, n.o.s.
3134	**139**	Water-reactive solid, toxic, n.o.s.
3134	**139**	Water-reactive substances, solid, poisonous, n.o.s.
3134	**139**	Water-reactive substances, solid, toxic, n.o.s.

ID No.	Guide No.	Name of Material
3135	**138**	Substances, which in contact with water emit flammable gases, solid, self-heating, n.o.s.
3135	**138**	Water-reactive solid, self-heating, n.o.s.
3135	**138**	Water-reactive substances, solid, self-heating, n.o.s.
3136	**120**	Trifluoromethane, refrigerated liquid
3137	**140**	Oxidizing solid, flammable, n.o.s.
3137	**140**	Oxidizing substances, solid, flammable, n.o.s.
3138	**116**	Acetylene, Ethylene and Propylene in mixture, refrigerated liquid containing at least 71.5% Ethylene with not more than 22.5% Acetylene and not more than 6% Propylene
3138	**116**	Ethylene, Acetylene and Propylene in mixture, refrigerated liquid containing at least 71.5% Ethylene with not more than 22.5% Acetylene and not more than 6% Propylene
3138	**116**	Propylene, Ethylene and Acetylene in mixture, refrigerated liquid containing at least 71.5% Ethylene with not more than 22.5% Acetylene and not more than 6% Propylene
3139	**140**	Oxidizing liquid, n.o.s.
3139	**140**	Oxidizing substances, liquid, n.o.s.
3140	**151**	Alkaloids, liquid, n.o.s. (poisonous)
3140	**151**	Alkaloid salts, liquid, n.o.s. (poisonous)
3141	**157**	Antimony compound, inorganic, liquid, n.o.s.
3142	**151**	Disinfectant, liquid, poisonous, n.o.s.
3142	**151**	Disinfectant, liquid, toxic, n.o.s.
3142	**151**	Disinfectants, liquid, n.o.s. (poisonous)
3143	**151**	Dye, solid, poisonous, n.o.s.
3143	**151**	Dye, solid, toxic, n.o.s.
3143	**151**	Dye intermediate, solid, poisonous, n.o.s.
3143	**151**	Dye intermediate, solid, toxic, n.o.s.
3144	**151**	Nicotine compound, liquid, n.o.s.
3144	**151**	Nicotine preparation, liquid, n.o.s.
3145	**153**	Alkyl phenols, liquid, n.o.s. (including C2-C12 homologues)
3146	**153**	Organotin compound, solid, n.o.s.
3147	**154**	Dye, solid, corrosive, n.o.s.
3147	**154**	Dye intermediate, solid, corrosive, n.o.s.
3148	**138**	Substances, which in contact with water emit flammable gases, liquid, n.o.s.
3148	**138**	Water-reactive liquid, n.o.s.
3148	**138**	Water-reactive substances, liquid, n.o.s.
3149	**140**	Hydrogen peroxide and Peroxyacetic acid mixture, with acid(s), water and not more than 5% Peroxyacetic acid, stabilized
3150	**115**	Devices, small, hydrocarbon gas powered, with release device

ID No.	Guide No.	Name of Material
3150	**115**	Hydrocarbon gas refills for small devices, with release device
3151	**171**	Polyhalogenated biphenyls, liquid
3151	**171**	Polyhalogenated terphenyls, liquid
3152	**171**	Polyhalogenated biphenyls, solid
3152	**171**	Polyhalogenated terphenyls, solid
3153	**115**	Perfluoromethyl vinyl ether
3153	**115**	Perfluoro(methyl vinyl ether)
3154	**115**	Perfluoroethyl vinyl ether
3154	**115**	Perfluoro(ethyl vinyl ether)
3155	**154**	Pentachlorophenol
3156	**122**	Compressed gas, oxidizing, n.o.s.
3157	**122**	Liquefied gas, oxidizing, n.o.s.
3158	**120**	Gas, refrigerated liquid, n.o.s.
3159	**126**	Refrigerant gas R-134a
3159	**126**	1,1,1,2-Tetrafluoroethane
3160	**119**	Liquefied gas, poisonous, flammable, n.o.s.
3160	**119**	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)
3160	**119**	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)
3160	**119**	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)
3160	**119**	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)
3160	**119**	Liquefied gas, toxic, flammable, n.o.s.
3160	**119**	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)
3160	**119**	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)
3160	**119**	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)
3160	**119**	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)
3161	**115**	Liquefied gas, flammable, n.o.s.
3162	**123**	Liquefied gas, poisonous, n.o.s.
3162	**123**	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone A)
3162	**123**	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone B)
3162	**123**	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone C)
3162	**123**	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone D)
3162	**123**	Liquefied gas, toxic, n.o.s.
3162	**123**	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone A)
3162	**123**	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone B)
3162	**123**	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone C)
3162	**123**	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone D)
3163	**126**	Liquefied gas, n.o.s.
3164	**126**	Articles, pressurized, hydraulic (containing non-flammable gas)
3164	**126**	Articles, pressurized, pneumatic (containing non-flammable gas)

ID No.	Guide No.	Name of Material
3165	**131**	Aircraft hydraulic power unit fuel tank
3166	**128**	Engines, internal combustion, flammable gas powered
3166	**128**	Engines, internal combustion, flammable liquid powered
3166	**128**	Engines, internal combustion, including when fitted in machinery or vehicles
3166	**128**	Vehicle, flammable gas powered
3166	**128**	Vehicle, flammable liquid powered
3167	**115**	Gas sample, non-pressurized, flammable, n.o.s., not refrigerated liquid
3168	**119**	Gas sample, non-pressurized, poisonous, flammable, n.o.s., not refrigerated liquid
3168	**119**	Gas sample, non-pressurized, toxic, flammable, n.o.s., not refrigerated liquid
3169	**123**	Gas sample, non-pressurized, poisonous, n.o.s., not refrigerated liquid
3169	**123**	Gas sample, non-pressurized, toxic, n.o.s., not refrigerated liquid
3170	**138**	Aluminum dross
3170	**138**	Aluminum processing by-products
3170	**138**	Aluminum remelting by-products
3170	**138**	Aluminum smelting by-products
3171	**154**	Battery-powered equipment (wet battery)
3171	**154**	Battery-powered vehicle (wet battery)
3171	**154**	Wheelchair, electric, with batteries
3172	**153**	Toxins, extracted from living sources, liquid, n.o.s.
3172	**153**	Toxins, extracted from living sources, n.o.s.
3172	**153**	Toxins, extracted from living sources, solid, n.o.s.
3174	**135**	Titanium disulfide
3174	**135**	Titanium disulphide
3175	**133**	Solids containing flammable liquid, n.o.s.
3176	**133**	Flammable solid, organic, molten, n.o.s.
3178	**133**	Flammable solid, inorganic, n.o.s.
3178	**133**	Smokeless powder for small arms
3179	**134**	Flammable solid, poisonous, inorganic, n.o.s.
3179	**134**	Flammable solid, toxic, inorganic, n.o.s.
3180	**134**	Flammable solid, corrosive, inorganic, n.o.s.
3180	**134**	Flammable solid, inorganic, corrosive, n.o.s.
3181	**133**	Metal salts of organic compounds, flammable, n.o.s.
3182	**170**	Metal hydrides, flammable, n.o.s.
3183	**135**	Self-heating liquid, organic, n.o.s.
3184	**136**	Self-heating liquid, poisonous, organic, n.o.s.
3184	**136**	Self-heating liquid, toxic, organic, n.o.s.
3185	**136**	Self-heating liquid, corrosive, organic, n.o.s.
3186	**135**	Self-heating liquid, inorganic, n.o.s.
3187	**136**	Self-heating liquid, poisonous, inorganic, n.o.s.

ID No.	Guide No.	Name of Material
3187	**136**	Self-heating liquid, toxic, inorganic, n.o.s.
3188	**136**	Self-heating liquid, corrosive, inorganic, n.o.s.
3189	**135**	Metal powder, self-heating, n.o.s.
3189	**135**	Self-heating metal powders, n.o.s.
3190	**135**	Self-heating solid, inorganic, n.o.s.
3191	**136**	Self-heating solid, inorganic, poisonous, n.o.s.
3191	**136**	Self-heating solid, inorganic, toxic, n.o.s.
3191	**136**	Self-heating solid, poisonous, inorganic, n.o.s.
3191	**136**	Self-heating solid, toxic, inorganic, n.o.s.
3192	**136**	Self-heating solid, corrosive, inorganic, n.o.s.
3194	**135**	Pyrophoric liquid, inorganic, n.o.s.
3200	**135**	Pyrophoric solid, inorganic, n.o.s.
3203	**135**	Pyrophoric organometallic compound, n.o.s.
3203	**135**	Pyrophoric organometallic compound, water-reactive, n.o.s.
3205	**135**	Alkaline earth metal alcoholates, n.o.s.
3206	**136**	Alkali metal alcoholates, self-heating, corrosive, n.o.s.
3207	**138**	Organometallic compound, water-reactive, flammable, n.o.s.
3207	**138**	Organometallic compound dispersion, water-reactive, flammable, n.o.s.
3207	**138**	Organometallic compound solution, water-reactive, flammable, n.o.s.

ID No.	Guide No.	Name of Material
3208	**138**	Metallic substance, water-reactive, n.o.s.
3209	**138**	Metallic substance, water-reactive, self-heating, n.o.s.
3210	**140**	Chlorates, inorganic, aqueous solution, n.o.s.
3211	**140**	Perchlorates, inorganic, aqueous solution, n.o.s.
3212	**140**	Hypochlorites, inorganic, n.o.s.
3213	**140**	Bromates, inorganic, aqueous solution, n.o.s.
3214	**140**	Permanganates, inorganic, aqueous solution, n.o.s.
3215	**140**	Persulfates, inorganic, n.o.s.
3215	**140**	Persulphates, inorganic, n.o.s.
3216	**140**	Persulfates, inorganic, aqueous solution, n.o.s.
3216	**140**	Persulphates, inorganic, aqueous solution, n.o.s.
3217	**140**	Percarbonates, inorganic, n.o.s.
3218	**140**	Nitrates, inorganic, aqueous solution, n.o.s.
3219	**140**	Nitrites, inorganic, aqueous solution, n.o.s.
3220	**126**	Pentafluoroethane
3220	**126**	Refrigerant gas R-125
3221	**149**	Self-reactive liquid type B
3222	**149**	Self-reactive solid type B
3223	**149**	Self-reactive liquid type C
3224	**149**	Self-reactive solid type C
3225	**149**	Self-reactive liquid type D
3226	**149**	Self-reactive solid type D
3227	**149**	Self-reactive liquid type E
3228	**149**	Self-reactive solid type E
3229	**149**	Self-reactive liquid type F

ID No.	Guide No.	Name of Material
3230	**149**	Self-reactive solid type F
3231	**150**	Self-reactive liquid type B, temperature controlled
3232	**150**	Self-reactive solid type B, temperature controlled
3233	**150**	Self-reactive liquid type C, temperature controlled
3234	**150**	Self-reactive solid type C, temperature controlled
3235	**150**	Self-reactive liquid type D, temperature controlled
3236	**150**	Self-reactive solid type D, temperature controlled
3237	**150**	Self-reactive liquid type E, temperature controlled
3238	**150**	Self-reactive solid type E, temperature controlled
3239	**150**	Self-reactive liquid type F, temperature controlled
3240	**150**	Self-reactive solid type F, temperature controlled
3241	**133**	2-Bromo-2-nitropropane-1,3-diol
3242	**149**	Azodicarbonamide
3243	**151**	Solids containing poisonous liquid, n.o.s.
3243	**151**	Solids containing toxic liquid, n.o.s.
3244	**154**	Solids containing corrosive liquid, n.o.s.
3245	**171**	Genetically modified micro-organisms
3246	**156**	Methanesulfonyl chloride
3246	**156**	Methanesulphonyl chloride
3247	**140**	Sodium peroxoborate, anhydrous
3248	**131**	Medicine, liquid, flammable, poisonous, n.o.s.
3248	**131**	Medicine, liquid, flammable, toxic, n.o.s.
3249	**151**	Medicine, solid, poisonous, n.o.s.
3249	**151**	Medicine, solid, toxic, n.o.s.
3250	**153**	Chloroacetic acid, molten
3251	**133**	Isosorbide-5-mononitrate
3252	**115**	Difluoromethane
3252	**115**	Refrigerant gas R-32
3253	**154**	Disodium trioxosilicate
3253	**154**	Disodium trioxosilicate, pentahydrate
3254	**135**	Tributylphosphane
3254	**135**	Tributylphosphine
3255	**135**	tert-Butyl hypochlorite
3256	**128**	Elevated temperature liquid, flammable, n.o.s., with flash point above 37.8°C (100°F), at or above its flash point
3256	**128**	Elevated temperature liquid, flammable, n.o.s., with flash point above 60.5°C (141°F), at or above its flash point
3257	**128**	Elevated temperature liquid, n.o.s., at or above 100°C (212°F)and below its flash point
3258	**171**	Elevated temperature solid, n.o.s., at or above 240°C (464°F)
3259	**154**	Amines, solid, corrosive, n.o.s.
3259	**154**	Polyamines, solid, corrosive, n.o.s.
3260	**154**	Corrosive solid, acidic, inorganic, n.o.s.
3261	**154**	Corrosive solid, acidic, organic, n.o.s.
3262	**154**	Corrosive solid, basic, inorganic, n.o.s.

ID No.	Guide No.	Name of Material
3263	154	Corrosive solid, basic, organic, n.o.s.
3264	154	Corrosive liquid, acidic, inorganic, n.o.s.
3265	153	Corrosive liquid, acidic, organic, n.o.s.
3266	154	Corrosive liquid, basic, inorganic, n.o.s.
3267	153	Corrosive liquid, basic, organic, n.o.s.
3268	171	Air bag inflators
3268	171	Air bag inflators, pyrotechnic
3268	171	Air bag modules
3268	171	Air bag modules, pyrotechnic
3268	171	Seat-belt modules
3268	171	Seat-belt pre-tensioners
3268	171	Seat-belt pre-tensioners, pyrotechnic
3269	127	Polyester resin kit
3270	133	Nitrocellulose membrane filters
3271	127	Ethers, n.o.s.
3272	127	Esters, n.o.s.
3273	131	Nitriles, flammable, poisonous, n.o.s.
3273	131	Nitriles, flammable, toxic, n.o.s.
3274	127	Alcoholates solution, n.o.s., in alcohol
3275	131	Nitriles, poisonous, flammable, n.o.s.
3275	131	Nitriles, toxic, flammable, n.o.s.
3276	151	Nitriles, poisonous, n.o.s.
3276	151	Nitriles, toxic, n.o.s.
3277	154	Chloroformates, poisonous, corrosive, n.o.s.
3277	154	Chloroformates, toxic, corrosive, n.o.s.
3278	151	Organophosphorus compound, poisonous, n.o.s.
3278	151	Organophosphorus compound, toxic, n.o.s.
3279	131	Organophosphorus compound, poisonous, flammable, n.o.s.
3279	131	Organophosphorus compound, toxic, flammable, n.o.s.
3280	151	Organoarsenic compound, n.o.s.
3281	151	Metal carbonyls, n.o.s.
3282	151	Organometallic compound, poisonous, n.o.s.
3282	151	Organometallic compound, toxic, n.o.s.
3283	151	Selenium compound, n.o.s.
3284	151	Tellurium compound, n.o.s.
3285	151	Vanadium compound, n.o.s.
3286	131	Flammable liquid, poisonous, corrosive, n.o.s.
3286	131	Flammable liquid, toxic, corrosive, n.o.s.
3287	151	Poisonous liquid, inorganic, n.o.s.
3287	151	Poisonous liquid, inorganic, n.o.s. (Inhalation Hazard Zone A)
3287	151	Poisonous liquid, inorganic, n.o.s. (Inhalation Hazard Zone B)
3287	151	Toxic liquid, inorganic, n.o.s.
3287	151	Toxic liquid, inorganic, n.o.s. (Inhalation Hazard Zone A)
3287	151	Toxic liquid, inorganic, n.o.s. (Inhalation Hazard Zone B)
3288	151	Poisonous solid, inorganic, n.o.s.
3288	151	Toxic solid, inorganic, n.o.s.

ID No.	Guide No.	Name of Material
3289	**154**	Poisonous liquid, corrosive, inorganic, n.o.s.
3289	**154**	Poisonous liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone A)
3289	**154**	Poisonous liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone B)
3289	**154**	Toxic liquid, corrosive, inorganic, n.o.s.
3289	**154**	Toxic liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone A)
3289	**154**	Toxic liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone B)
3290	**154**	Poisonous solid, corrosive, inorganic, n.o.s.
3290	**154**	Toxic solid, corrosive, inorganic, n.o.s.
3291	**158**	(Bio)Medical waste, n.o.s.
3291	**158**	Clinical waste, unspecified, n.o.s.
3291	**158**	Medical waste, n.o.s.
3291	**158**	Regulated medical waste, n.o.s.
3292	**138**	Batteries, containing Sodium
3292	**138**	Cells, containing Sodium
3293	**152**	Hydrazine, aqueous solution, with not more than 37% Hydrazine
3294	**131**	Hydrogen cyanide, solution in alcohol, with not more than 45% Hydrogen cyanide
3295	**128**	Hydrocarbons, liquid, n.o.s.
3296	**126**	Heptafluoropropane
3296	**126**	Refrigerant gas R-227
3297	**126**	Chlorotetrafluoroethane and Ethylene oxide mixture, with not more than 8.8% Ethylene oxide
3297	**126**	Ethylene oxide and Chlorotetrafluoroethane mixture, with not more than 8.8% Ethylene oxide
3298	**126**	Ethylene oxide and Pentafluoroethane mixture, with not more than 7.9% Ethylene oxide
3298	**126**	Pentafluoroethane and Ethylene oxide mixture, with not more than 7.9% Ethylene oxide
3299	**126**	Ethylene oxide and Tetrafluoroethane mixture, with not more than 5.6% Ethylene oxide
3299	**126**	Tetrafluoroethane and Ethylene oxide mixture, with not more than 5.6% Ethylene oxide
3300	**119P**	Carbon dioxide and Ethylene oxide mixture, with more than 87% Ethylene oxide
3300	**119P**	Ethylene oxide and Carbon dioxide mixture, with more than 87% Ethylene oxide
3301	**136**	Corrosive liquid, self-heating, n.o.s.
3302	**152**	2-Dimethylaminoethyl acrylate
3303	**124**	Compressed gas, poisonous, oxidizing, n.o.s.
3303	**124**	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3303	**124**	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)

ID No.	Guide No.	Name of Material
3303	**124**	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)
3303	**124**	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)
3303	**124**	Compressed gas, toxic, oxidizing, n.o.s.
3303	**124**	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3303	**124**	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)
3303	**124**	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)
3303	**124**	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)
3304	**123**	Compressed gas, poisonous, corrosive, n.o.s.
3304	**123**	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)
3304	**123**	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)
3304	**123**	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)
3304	**123**	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)
3304	**123**	Compressed gas, toxic, corrosive, n.o.s.
3304	**123**	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)

ID No.	Guide No.	Name of Material
3304	**123**	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)
3304	**123**	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)
3304	**123**	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)
3305	**119**	Compressed gas, poisonous, flammable, corrosive, n.o.s.
3305	**119**	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)
3305	**119**	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)
3305	**119**	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)
3305	**119**	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)
3305	**119**	Compressed gas, toxic, flammable, corrosive, n.o.s.
3305	**119**	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)
3305	**119**	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)
3305	**119**	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)
3305	**119**	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)
3306	**124**	Compressed gas, poisonous, oxidizing, corrosive, n.o.s.

ID No.	Guide No.	Name of Material
3306	**124**	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)
3306	**124**	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)
3306	**124**	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)
3306	**124**	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)
3306	**124**	Compressed gas, toxic, oxidizing, corrosive, n.o.s.
3306	**124**	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)
3306	**124**	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)
3306	**124**	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)
3306	**124**	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)
3307	**124**	Liquefied gas, poisonous, oxidizing, n.o.s.
3307	**124**	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3307	**124**	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)
3307	**124**	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)
3307	**124**	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)
3307	**124**	Liquefied gas, toxic, oxidizing, n.o.s.
3307	**124**	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3307	**124**	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)
3307	**124**	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)
3307	**124**	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)
3308	**123**	Liquefied gas, poisonous, corrosive, n.o.s.
3308	**123**	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)
3308	**123**	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)
3308	**123**	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)
3308	**123**	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)
3308	**123**	Liquefied gas, toxic, corrosive, n.o.s.
3308	**123**	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)
3308	**123**	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)
3308	**123**	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)

ID No.	Guide No.	Name of Material
3308	**123**	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)
3309	**119**	Liquefied gas, poisonous, flammable, corrosive, n.o.s.
3309	**119**	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)
3309	**119**	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)
3309	**119**	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)
3309	**119**	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)
3309	**119**	Liquefied gas, toxic, flammable, corrosive, n.o.s.
3309	**119**	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)
3309	**119**	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)
3309	**119**	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)
3309	**119**	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)
3310	**124**	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s.
3310	**124**	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)
3310	**124**	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)
3310	**124**	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)
3310	**124**	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)
3310	**124**	Liquefied gas, toxic, oxidizing, corrosive, n.o.s.
3310	**124**	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)
3310	**124**	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)
3310	**124**	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)
3310	**124**	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)
3311	**122**	Gas, refrigerated liquid, oxidizing, n.o.s.
3312	**115**	Gas, refrigerated liquid, flammable, n.o.s.
3313	**135**	Organic pigments, self-heating
3314	**171**	Plastic molding compound
3314	**171**	Plastics moulding compound
3315	**151**	Chemical sample, poisonous liquid
3315	**151**	Chemical sample, poisonous solid
3315	**151**	Chemical sample, toxic liquid
3315	**151**	Chemical sample, toxic solid
3316	**171**	Chemical kit
3316	**171**	First aid kit
3317	**113**	2-Amino-4,6-dinitrophenol, wetted with not less than 20% water

ID No.	Guide No.	Name of Material
3318	**125**	Ammonia solution, with more than 50% Ammonia
3319	**113**	Nitroglycerin mixture, desensitized, solid, n.o.s., with more than 2% but not more than 10% Nitroglycerin
3319	**113**	Nitroglycerin mixture with more than 2% but not more than 10% Nitroglycerin, desensitized
3320	**157**	Sodium borohydride and Sodium hydroxide solution, with not more than 12% Sodium borohydride and not more than 40% Sodium hydroxide
3321	**162**	Radioactive material, low specific activity (LSA-II)
3322	**162**	Radioactive material, low specific activity (LSA-III)
3323	**163**	Radioactive material, Type C package
3324	**165**	Radioactive material, low specific activity (LSA-II), fissile
3325	**165**	Radioactive material, low specific activity (LSA-III), fissile
3326	**165**	Radioactive material, surface contaminated objects (SCO-I), fissile
3326	**165**	Radioactive material, surface contaminated objects (SCO-II), fissile
3327	**165**	Radioactive material, Type A package, fissile
3328	**165**	Radioactive material, Type B(U) package, fissile
3329	**165**	Radioactive material, Type B(M) package, fissile
3330	**165**	Radioactive material, Type C package, fissile
3331	**165**	Radioactive material, transported under special arrangement, fissile
3332	**164**	Radioactive material, Type A package, special form
3333	**165**	Radioactive material, Type A package, special form, fissile
3334	**171**	Aviation regulated liquid, n.o.s.
3335	**171**	Aviation regulated solid, n.o.s.
3336	**130**	Mercaptan mixture, liquid, flammable, n.o.s.
3336	**130**	Mercaptans, liquid, flammable, n.o.s.
3337	**126**	Refrigerant gas R-404A
3338	**126**	Refrigerant gas R-407A
3339	**126**	Refrigerant gas R-407B
3340	**126**	Refrigerant gas R-407C
3341	**135**	Thiourea dioxide
3342	**135**	Xanthates
3343	**113**	Nitroglycerin mixture, desensitized, liquid, flammable, n.o.s., with not more than 30% Nitroglycerin
3344	**113**	Pentaerythrite tetranitrate mixture, desensitized, solid, n.o.s., with more than 10% but not more than 20% PETN
3345	**153**	Phenoxyacetic acid derivative pesticide, solid, poisonous
3345	**153**	Phenoxyacetic acid derivative pesticide, solid, toxic
3346	**131**	Phenoxyacetic acid derivative pesticide, liquid, flammable, poisonous
3346	**131**	Phenoxyacetic acid derivative pesticide, liquid, flammable, toxic

ID No.	Guide No.	Name of Material
3347	**131**	Phenoxyacetic acid derivative pesticide, liquid, poisonous, flammable
3347	**131**	Phenoxyacetic acid derivative pesticide, liquid, toxic, flammable
3348	**153**	Phenoxyacetic acid derivative pesticide, liquid, poisonous
3348	**153**	Phenoxyacetic acid derivative pesticide, liquid, toxic
3349	**151**	Pyrethroid pesticide, solid, poisonous
3349	**151**	Pyrethroid pesticide, solid, toxic
3350	**131**	Pyrethroid pesticide, liquid, flammable, poisonous
3350	**131**	Pyrethroid pesticide, liquid, flammable, toxic
3351	**131**	Pyrethroid pesticide, liquid, poisonous, flammable
3351	**131**	Pyrethroid pesticide, liquid, toxic, flammable
3352	**151**	Pyrethroid pesticide, liquid, poisonous
3352	**151**	Pyrethroid pesticide, liquid, toxic
3353	**126**	Air bag inflators, compressed gas
3353	**126**	Air bag modules, compressed gas
3353	**126**	Seat-belt pre-tensioners, compressed gas
3354	**115**	Insecticide gas, flammable, n.o.s.
3355	**119**	Insecticide gas, poisonous, flammable, n.o.s.
3355	**119**	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)
3355	**119**	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)
3355	**119**	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)
3355	**119**	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)
3355	**119**	Insecticide gas, toxic, flammable, n.o.s.
3355	**119**	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)
3355	**119**	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)
3355	**119**	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)
3355	**119**	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)
3356	**140**	Oxygen generator, chemical
3357	**113**	Nitroglycerin mixture, desensitized, liquid, n.o.s., with not more than 30% Nitroglycerin
3358	**115**	Refrigerating machines containing flammable, non-toxic, liquefied gas
8000	**171**	Consumer commodity
8001	**171**	Dangerous goods in apparatus
8001	**171**	Dangerous goods in machinery
8013	**171**	Gas generator assemblies
8023	**115**	Refrigerating machines
8027	**171**	Other regulated substance
8037	**140**	Oxygen generators, small
8038	**171**	Heat producing article
9011	**133**	Camphene
9018	**160**	Dichlorodifluoroethylene

ID No.	Guide No.	Name of Material
9026	**153**	Dinitrocyclohexylphenol
9035	**123**	Gas identification set
9037	**151**	Hexachloroethane
9069	**132**	Tetramethylmethylenediamine
9073	**113**	Trinitroaniline, wetted
9077	**153**	Adipic acid
9078	**171**	Aluminum sulfate, solid
9078	**171**	Aluminum sulphate, solid
9079	**171**	Ammonium acetate
9080	**171**	Ammonium benzoate
9081	**171**	Ammonium bicarbonate
9083	**154**	Ammonium carbamate
9084	**154**	Ammonium carbonate
9085	**171**	Ammonium chloride
9086	**143**	Ammonium chromate
9087	**171**	Ammonium citrate, dibasic
9088	**154**	Ammonium fluoborate
9089	**171**	Ammonium sulfamate
9089	**171**	Ammonium sulphamate
9090	**171**	Ammonium sulfite
9090	**171**	Ammonium sulphite
9091	**171**	Ammonium tartrate
9094	**153**	Benzoic acid
9095	**171**	n-Butyl phthalate
9096	**171**	Calcium chromate
9097	**171**	Calcium dodecylbenzenesulfonate
9097	**171**	Calcium dodecylbenzenesulphonate
9100	**171**	Chromic sulfate
9100	**171**	Chromic sulphate
9101	**171**	Chromic acetate
9102	**171**	Chromous chloride

ID No.	Guide No.	Name of Material
9103	**171**	Cobaltous bromide
9104	**171**	Cobaltous formate
9105	**171**	Cobaltous sulfamate
9105	**171**	Cobaltous sulphamate
9106	**171**	Cupric acetate
9109	**171**	Cupric sulfate
9109	**171**	Cupric sulphate
9110	**171**	Cupric sulfate, ammoniated
9110	**171**	Cupric sulphate, ammoniated
9111	**171**	Cupric tartrate
9117	**171**	EDTA
9117	**171**	Ethylenediaminetetraacetic acid
9118	**171**	Ferric ammonium citrate
9119	**171**	Ferric ammonium oxalate
9120	**171**	Ferric fluoride
9121	**171**	Ferric sulfate
9121	**171**	Ferric sulphate
9122	**171**	Ferrous ammonium sulfate
9122	**171**	Ferrous ammonium sulphate
9125	**171**	Ferrous sulfate
9125	**171**	Ferrous sulphate
9126	**171**	Fumaric acid
9127	**171**	Isopropanolamine dodecylbenzenesulfonate
9127	**171**	Isopropanolamine dodecylbenzenesulphonate
9134	**171**	Lithium chromate
9137	**171**	Naphthenic acid
9138	**171**	Nickel ammonium sulfate
9138	**171**	Nickel ammonium sulphate
9139	**151**	Nickel chloride
9140	**154**	Nickel hydroxide
9141	**154**	Nickel sulfate

ID No.	Guide No.	Name of Material
9141	**154**	Nickel sulphate
9142	**171**	Potassium chromate
9145	**171**	Sodium chromate
9146	**171**	Sodium dodecylbenzenesulfonate (branched chain)
9146	**171**	Sodium dodecylbenzenesulphonate (branched chain)
9147	**171**	Sodium phosphate, dibasic
9148	**171**	Sodium phosphate, tribasic
9149	**171**	Strontium chromate
9151	**171**	Triethanolamine dodecylbenzenesulfonate
9151	**171**	Triethanolamine dodecylbenzenesulphonate
9153	**171**	Zinc acetate
9154	**171**	Zinc ammonium chloride
9155	**171**	Zinc borate
9156	**171**	Zinc bromide
9157	**171**	Zinc carbonate
9158	**151**	Zinc fluoride
9159	**171**	Zinc formate
9160	**171**	Zinc phenolsulfonate
9160	**171**	Zinc phenolsulphonate
9161	**171**	Zinc sulfate
9161	**171**	Zinc sulphate
9162	**171**	Zirconium potassium fluoride
9163	**171**	Zirconium sulfate
9163	**171**	Zirconium sulphate
9180	**162**	Uranyl acetate
9183	**146**	Organic peroxide, liquid, n.o.s.
9183	**146**	Organic peroxide, solution, n.o.s.
9187	**146**	Organic peroxide, solid, n.o.s.
9188	**171**	Hazardous substance, liquid, n.o.s.
9188	**171**	Hazardous substance, solid, n.o.s.
9188	**171**	ORM-E, liquid, n.o.s.
9188	**171**	ORM-E, solid, n.o.s.
9189	**171**	Hazardous waste, liquid, n.o.s.
9189	**171**	Hazardous waste, solid, n.o.s.
9190	**143**	Ammonium permanganate
9191	**143**	Chlorine dioxide, hydrate, frozen
9192	**167**	Fluorine, refrigerated liquid (cryogenic liquid)
9193	**140**	Oxidizer, corrosive, liquid, n.o.s.
9194	**140**	Oxidizer, corrosive, solid, n.o.s.
9195	**135**	Metal alkyl, solution, n.o.s.
9199	**142**	Oxidizer, poisonous, liquid, n.o.s.
9200	**141**	Oxidizer, poisonous, solid, n.o.s.
9201	**171**	Antimony trioxide
9202	**168**	Carbon monoxide, refrigerated liquid (cryogenic liquid)
9206	**137**	Methyl phosphonic dichloride
9259	**128**	Elevated temperature material, liquid, n.o.s., (at or above 100°C (212°F) and below its flash point)
9260	**169**	Aluminum, molten
9263	**156**	Chloropivaloyl chloride
9264	**151**	3,5-Dichloro-2,4,6-trifluoropyridine
9269	**132**	Trimethoxysilane
9274	**160**	1,1-Dichloro-1-fluoroethane
9275	**158**	Regulated medical waste
9276	**128**	Flammable liquids, elevated temperature material, n.o.s.

ID No.	Guide No.	Name of Material
9277	**171**	Oil, n.o.s., flash point not less than 93°C (200°F)
9278	**171**	Genetically modified organisms
9301	**153**	Waste Type 1
9302	**153**	Waste Type 2
9303	**131**	Waste Type 3
9304	**153**	Waste Type 4
9305	**131**	Waste Type 5
9306	**154**	Waste Type 6
9307	**154**	Waste Type 7
9308	**153**	Waste Type 8
9309	**153**	Waste Type 9
9310	**153**	Waste Type 10
9311	**153**	Waste Type 11
9312	**153**	Waste Type 12
9313	**153**	Waste Type 13
9314	**153**	Waste Type 14
9315	**153**	Waste Type 15
9316	**154**	Waste Type 16
9317	**154**	Waste Type 17
9318	**154**	Waste Type 18
9319	**154**	Waste Type 19
9320	**154**	Waste Type 20
9321	**154**	Waste Type 21
9322	**154**	Waste Type 22
9323	**154**	Waste Type 23
9324	**152**	Waste Type 24
9325	**127**	Waste Type 25
9326	**152**	Waste Type 26
9327	**131**	Waste Type 27
9328	**131**	Waste Type 28
9329	**153**	Waste Type 29
9330	**153**	Waste Type 30
9331	**129**	Waste Type 31
9332	**129**	Waste Type 32
9333	**129**	Waste Type 33
9334	**129**	Waste Type 34
9335	**153**	Waste Type 35
9336	**153**	Waste Type 36
9337	**153**	Waste Type 37
9338	**153**	Waste Type 38
9339	**153**	Waste Type 39
9340	**153**	Waste Type 40
9341	**132**	Waste Type 41
9342	**129**	Waste Type 42
9343	**154**	Waste Type 43
9344	**132**	Waste Type 44
9345	**132**	Waste Type 45
9346	**153**	Waste Type 46
9347	**132**	Waste Type 47
9348	**153**	Waste Type 48
9349	**153**	Waste Type 49
9350	**153**	Waste Type 50
9351	**153**	Waste Type 51
9352	**153**	Waste Type 52
9353	**153**	Waste Type 53
9354	**153**	Waste Type 54
9355	**153**	Waste Type 55
9356	**153**	Waste Type 56
9357	**153**	Waste Type 57
9358	**153**	Waste Type 58
9359	**151**	Waste Type 59
9360	**132**	Waste Type 60
9361	**151**	Waste Type 61
9362	**151**	Waste Type 62
9363	**151**	Waste Type 63

ID No.	Guide No.	Name of Material
9364	**151**	Waste Type 64
9365	**151**	Waste Type 65
9366	**151**	Waste Type 66
9367	**152**	Waste Type 67
9368	**154**	Waste Type 68
9369	**151**	Waste Type 69
9370	**151**	Waste Type 70
9371	**133**	Waste Type 71
9372	**151**	Waste Type 72
9373	**151**	Waste Type 73
9374	**127**	Waste Type 74
9375	**153**	Waste Type 75
9376	**153**	Waste Type 76
9377	**131**	Waste Type 77
9378	**153**	Waste Type 78
9379	**153**	Waste Type 79
9380	**151**	Waste Type 80
9381	**154**	Waste Type 81
9382	**154**	Waste Type 82
9383	**154**	Waste Type 83
9384	**151**	Waste Type 84
9385	**154**	Waste Type 85
9386	**154**	Waste Type 86
9387	**154**	Waste Type 87
9388	**151**	Waste Type 88
9389	**154**	Waste Type 89
9390	**154**	Waste Type 90
9391	**153**	Waste Type 91
9392	**154**	Waste Type 92
9393	**153**	Waste Type 93
9394	**151**	Waste Type 94
9395	**153**	Waste Type 95
9396	**151**	Waste Type 96
9397	**153**	Waste Type 97
9399	**137**	Waste Type 99
9400	**137**	Waste Type 100
9500	**151**	Leachable toxic waste

Note: If an entry is highlighted in either the yellow-bordered or blue-bordered pages AND THERE IS NO FIRE, go directly to the Table of Initial Isolation and Protective Action Distances (green-bordered pages) and look up the ID number and name of material to obtain initial isolation and protective action distances. IF THERE IS A FIRE, or IF A FIRE IS INVOLVED, go directly to the appropriate guide (orange-bordered pages) and use the evacuation information shown under PUBLIC SAFETY.

Name of Material	Guide No.	ID No.
AC	117	1051
Accumulators, pressurized, pneumatic or hydraulic	126	1956
Acetal	127	1088
Acetaldehyde	129	1089
Acetaldehyde ammonia	171	1841
Acetaldehyde oxime	129	2332
Acetic acid, glacial	132	2789
Acetic acid, solution, more than 10% but not more than 80% acid	153	2790
Acetic acid, solution, more than 80% acid	132	2789
Acetic anhydride	137	1715
Acetone	127	1090
Acetone cyanohydrin, stabilized	155	1541
Acetone oils	127	1091
Acetonitrile	131	1648
Acetyl acetone peroxide	145	2080
Acetyl benzoyl peroxide	147	2081
Acetyl bromide	156	1716
Acetyl chloride	132	1717
Acetyl cyclohexanesulfonyl peroxide	148	2082
Acetyl cyclohexanesulfonyl peroxide	148	2083
Acetyl cyclohexanesulphonyl peroxide	148	2082
Acetyl cyclohexanesulphonyl peroxide	148	2083
Acetylene	116	1001
Acetylene, dissolved	116	1001
Acetylene, Ethylene and Propylene in mixture, refrigerated liquid containing at least 71.5% Ethylene with not more than 22.5% Acetylene and not more than 6% Propylene	116	3138
Acetylene tetrabromide	159	2504
Acetyl iodide	156	1898
Acetyl methyl carbinol	127	2621
Acetyl peroxide	148	2084
Acid, liquid, n.o.s.	154	1760
Acid, sludge	153	1906
Acid butyl phosphate	153	1718
Acridine	153	2713
Acrolein, inhibited	131P	1092
Acrolein dimer, stabilized	129P	2607
Acrylamide	153P	2074
Acrylic acid, inhibited	132P	2218
Acrylonitrile, inhibited	131P	1093
Adamsite	154	1698
Adhesives (flammable)	128	1133
Adipic acid	153	9077
Adiponitrile	153	2205
Aerosol dispensers	126	1950
Aerosols	126	1950
Air, compressed	122	1002
Air, refrigerated liquid (cryogenic liquid)	122	1003
Air, refrigerated liquid (cryogenic liquid), non-pressurized	122	1003
Air bag inflators	133	1325
Air bag inflators	171	3268
Air bag inflators, compressed gas	126	3353
Air bag inflators, pyrotechnic	171	3268
Air bag modules	133	1325
Air bag modules	171	3268
Air bag modules, compressed gas	126	3353
Air bag modules, pyrotechnic	171	3268
Aircraft evacuation slides	171	2990
Aircraft hydraulic power unit fuel tank	131	3165

Name of Material	Guide No.	ID No.
Aircraft survival kits	**171**	3072
Alcoholates solution, n.o.s., in alcohol	**127**	3274
Alcoholic beverages	**127**	3065
Alcohols, flammable, poisonous, n.o.s.	**131**	1986
Alcohols, flammable, toxic, n.o.s.	**131**	1986
Alcohols, n.o.s.	**127**	1987
Alcohols, poisonous, n.o.s.	**131**	1986
Alcohols, toxic, n.o.s.	**131**	1986
Aldehydes, flammable, poisonous, n.o.s.	**131**	1988
Aldehydes, flammable, toxic, n.o.s.	**131**	1988
Aldehydes, n.o.s.	**129**	1989
Aldehydes, poisonous, n.o.s.	**131**	1988
Aldehydes, toxic, n.o.s.	**131**	1988
Aldol	**153**	2839
Aldrin, liquid	**131**	2762
Aldrin, solid	**151**	2761
Aldrin mixture, dry	**151**	2761
Aldrin mixture, liquid	**131**	2762
Alkali metal alcoholates, self-heating, corrosive, n.o.s.	**136**	3206
Alkali metal alloy, liquid, n.o.s.	**138**	1421
Alkali metal amalgam	**138**	1389
Alkali metal amalgam, liquid	**138**	1389
Alkali metal amalgam, solid	**138**	1389
Alkali metal amides	**139**	1390
Alkali metal dispersion	**138**	1391
Alkaline earth metal alcoholates, n.o.s.	**135**	3205
Alkaline earth metal alloy, n.o.s.	**138**	1393
Alkaline earth metal amalgam	**138**	1392
Alkaline earth metal dispersion	**138**	1391
Alkaline liquid, n.o.s.	**154**	1719
Alkaloids, liquid, n.o.s. (poisonous)	**151**	3140
Alkaloids, solid, n.o.s. (poisonous)	**151**	1544
Alkaloid salts, liquid, n.o.s. (poisonous)	**151**	3140
Alkaloid salts, solid, n.o.s. (poisonous)	**151**	1544
Alkylamines, n.o.s.	**132**	2733
Alkylamines, n.o.s.	**132**	2734
Alkylamines, n.o.s.	**153**	2735
Alkyl phenols, liquid, n.o.s. (including C2-C12 homologues)	**153**	3145
Alkyl phenols, solid, n.o.s. (including C2-C12 homologues)	**153**	2430
Alkyl sulfonic acids, liquid, with more than 5% free Sulfuric acid	**153**	2584
Alkyl sulfonic acids, liquid, with not more than 5% free Sulfuric acid	**153**	2586
Alkyl sulfonic acids, solid, with more than 5% free Sulfuric acid	**153**	2583
Alkyl sulfonic acids, solid, with not more than 5% free Sulfuric acid	**153**	2585
Alkylsulfuric acids	**156**	2571
Alkyl sulphonic acids, liquid, with more than 5% free Sulphuric acid	**153**	2584
Alkyl sulphonic acids, liquid, with not more than 5% free Sulphuric acid	**153**	2586

Name of Material	Guide No.	ID No.
Alkyl sulphonic acids, solid, with more than 5% free Sulphuric acid	153	2583
Alkyl sulphonic acids, solid, with not more than 5% free Sulphuric acid	153	2585
Alkylsulphuric acids	156	2571
Allethrin	151	2902
Allyl acetate	131	2333
Allyl alcohol	131	1098
Allylamine	131	2334
Allyl bromide	131	1099
Allyl chloride	131	1100
Allyl chlorocarbonate	155	1722
Allyl chloroformate	155	1722
Allyl ethyl ether	131	2335
Allyl formate	131	2336
Allyl glycidyl ether	129	2219
Allyl iodide	132	1723
Allyl isothiocyanate, inhibited	155	1545
Allyl isothiocyanate, stabilized	155	1545
Allyltrichlorosilane, stabilized	155	1724
Aluminum, molten	169	9260
Aluminum alkyl halides	135	3052
Aluminum alkyl hydrides	138	3076
Aluminum alkyls	135	3051
Aluminum borohydride	135	2870
Aluminum borohydride in devices	135	2870
Aluminum bromide, anhydrous	137	1725
Aluminum bromide, solution	154	2580
Aluminum carbide	138	1394
Aluminum chloride, anhydrous	137	1726
Aluminum chloride, solution	154	2581
Aluminum dross	138	3170
Aluminum ferrosilicon powder	139	1395
Aluminum hydride	138	2463
Aluminum nitrate	140	1438
Aluminum phosphate, solution	154	1760
Aluminum phosphide	139	1397
Aluminum phosphide pesticide	157	3048
Aluminum powder, coated	170	1309
Aluminum powder, pyrophoric	135	1383
Aluminum powder, uncoated	138	1396
Aluminum processing by-products	138	3170
Aluminum remelting by-products	138	3170
Aluminum resinate	133	2715
Aluminum silicon powder, uncoated	138	1398
Aluminum smelting by-products	138	3170
Aluminum sulfate, solid	171	9078
Aluminum sulfate, solution	154	1760
Aluminum sulphate, solid	171	9078
Aluminum sulphate, solution	154	1760
Amines, flammable, corrosive, n.o.s.	132	2733
Amines, liquid, corrosive, flammable, n.o.s.	132	2734
Amines, liquid, corrosive, n.o.s.	153	2735
Amines, solid, corrosive, n.o.s.	154	3259
2-Amino-4-chlorophenol	151	2673
2-Amino-5-diethylaminopentane	153	2946
2-Amino-4,6-dinitrophenol, wetted with not less than 20% water	113	3317
2-(2-Aminoethoxy)ethanol	154	1760
2-(2-Aminoethoxy)ethanol	154	3055

Name of Material	Guide No.	ID No.
N-Aminoethylpiperazine	**153**	2815
Aminophenols	**152**	2512
Aminopropyldiethanolamine	**154**	1760
N-Aminopropylmorpholine	**154**	1760
Aminopyridines	**153**	2671
Ammonia, anhydrous	**125**	1005
Ammonia, anhydrous, liquefied	**125**	1005
Ammonia, solution, with more than 10% but not more than 35% Ammonia	**154**	2672
Ammonia, solution, with more than 35% but not more than 50% Ammonia	**125**	2073
Ammonia solution, with more than 50% Ammonia	**125**	1005
Ammonia solution, with more than 50% Ammonia	**125**	3318
Ammonium acetate	**171**	9079
Ammonium arsenate	**151**	1546
Ammonium benzoate	**171**	9080
Ammonium bicarbonate	**171**	9081
Ammonium bifluoride, solid	**154**	1727
Ammonium bifluoride, solution	**154**	2817
Ammonium bisulfite, solid	**154**	2693
Ammonium bisulfite, solution	**154**	2693
Ammonium bisulphite, solid	**154**	2693
Ammonium bisulphite, solution	**154**	2693
Ammonium carbamate	**154**	9083
Ammonium carbonate	**154**	9084
Ammonium chloride	**171**	9085
Ammonium chromate	**143**	9086
Ammonium citrate, dibasic	**171**	9087
Ammonium dichromate	**141**	1439
Ammonium dinitro-o-cresolate	**141**	1843
Ammonium fluoborate	**154**	9088
Ammonium fluoride	**154**	2505
Ammonium fluorosilicate	**151**	2854
Ammonium hydrogendifluoride, solid	**154**	1727
Ammonium hydrogendifluoride, solution	**154**	2817
Ammonium hydrogen fluoride, solid	**154**	1727
Ammonium hydrogen fluoride, solution	**154**	2817
Ammonium hydrogen sulfate	**154**	2506
Ammonium hydrogen sulphate	**154**	2506
Ammonium hydrosulfide, solution	**132**	2683
Ammonium hydrosulphide, solution	**132**	2683
Ammonium hydroxide	**154**	2672
Ammonium hydroxide, with more than 10% but not more than 35% Ammonia	**154**	2672
Ammonium metavanadate	**154**	2859
Ammonium nitrate, liquid (hot concentrated solution)	**140**	2426
Ammonium nitrate, with not more than 0.2% combustible substances	**140**	1942
Ammonium nitrate, with organic coating	**140**	1942
Ammonium nitrate fertilizer, n.o.s.	**140**	2072
Ammonium nitrate fertilizer, with not more than 0.4% combustible material	**140**	2071
Ammonium nitrate fertilizers	**140**	2067
Ammonium nitrate fertilizers	**140**	2071
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Antimony trichloride	157	1733
Antimony trichloride, liquid	157	1733
Antimony trichloride, solid	157	1733
Antimony trichloride, solution	157	1733
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Antimony trifluoride, solution	157	1549
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Aryl sulphonic acids, liquid, with not more than 5% free Sulphuric acid	153	2586
Aryl sulphonic acids, solid, with more than 5% free Sulphuric acid	153	2583
Aryl sulphonic acids, solid, with not more than 5% free Sulphuric acid	153	2585
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2,2'-Azodi-(2,4-dimethylvaleronitrile)	150	2953
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Barium	138	1400
Barium alloys, pyrophoric	135	1854
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Barium bromate	141	2719
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Barium compound, n.o.s.	154	1564
Barium cyanide	157	1565
Barium hypochlorite, with more than 22% available Chlorine	141	2741
Barium nitrate	141	1446
Barium oxide	157	1884
Barium perchlorate	141	1447
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Benzenesulfonyl chloride	**156**	2225
Benzene sulphohydrazide	**149**	2970
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Benzonitrile	**152**	2224
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Benzotrichloride	**156**	2226
Benzotrifluoride	**131**	2338
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Benzoyl peroxide	**146**	2088
Benzoyl peroxide	**145**	2089
Benzoyl peroxide	**146**	2090
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Beryllium chloride	**154**	1566
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Bicyclo[2.2.1]hepta-2,5-diene, inhibited	127P	2251
Bifluorides, n.o.s.	154	1740
Biological agents	158	——
(Bio)Medical waste, n.o.s.	158	3291
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Bipyridilium pesticide, liquid, flammable, toxic	131	2782
Bipyridilium pesticide, liquid, poisonous	151	3016
Bipyridilium pesticide, liquid, poisonous, flammable	131	3015
Bipyridilium pesticide, liquid, toxic	151	3016
Bipyridilium pesticide, liquid, toxic, flammable	131	3015
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Bipyridilium pesticide, solid, toxic	151	2781
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Bis-(2-chloroethyl) sulfide	153	2810
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Bisulphates, aqueous solution	154	2837
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Borate and Chlorate mixtures	140	1458
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Boron trifluoride, dihydrate	157	2851
Boron trifluoride acetic acid complex	157	1742
Boron trifluoride diethyl etherate	132	2604
Boron trifluoride dimethyl etherate	139	2965
Boron trifluoride propionic acid complex	157	1743
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Bromates, inorganic, n.o.s.	141	1450
Bromine	154	1744
Bromine, solution	154	1744
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Bromine pentafluoride	144	1745
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Bromoacetic acid	156	1938
Bromoacetic acid, solid	156	1938
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Bromoacetone	131	1569
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2-Bromobutane	130	2339
Bromochlorodifluoromethane	126	1974
Bromochloromethane	160	1887
1-Bromo-3-chloropropane	159	2688
2-Bromoethyl ethyl ether	130	2340
Bromoform	159	2515
1-Bromo-3-methylbutane	130	2341
Bromomethylpropanes	130	2342
2-Bromo-2-nitropropane-1,3-diol	133	3241
2-Bromopentane	130	2343
2-Bromopropane	130	2344
Bromopropanes	130	2344
3-Bromopropyne	129	2345
Bromotrifluoroethylene	116	2419
Bromotrifluoromethane	126	1009
Brown asbestos	171	2212
Brucine	152	1570
Burnt cotton, not picked	133	1325
Butadienes, inhibited	116P	1010
Butane	115	1011
Butane	115	1075
Butanedione	127	2346
Butane mixture	115	1011
Butane mixture	115	1075
Butanols	129	1120
Butoxyl	127	2708
Butyl acetates	129	1123
Butyl acid phosphate	153	1718
Butyl acrylate	129P	2348
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N-Butylaniline	153	2738
Butylbenzenes	128	2709
n-Butyl bromide	129	1126
Butyl chloride	130	1127
n-Butyl chloroformate	155	2743
sec-Butyl chloroformate	155	2742
tert-Butyl cumene peroxide	145	2091
tert-Butyl cumyl peroxide	145	2091
tert-Butylcyclohexyl chloroformate	156	2747
n-Butyl-4,4-di-(tert-butylperoxy)valerate	146	2140
n-Butyl-4,4-di-(tert-butylperoxy)valerate	145	2141
Butylene	115	1012
Butylene	115	1075
1,2-Butylene oxide, stabilized	127P	3022
Butyl ethers	127	1149
n-Butyl formate	129	1128
tert-Butyl hydroperoxide	147	2093
tert-Butyl hydroperoxide	147	2094
tert-Butyl hydroperoxide, not more than 80% in Di-tert-butyl peroxide and/or solvent	147	2092
tert-Butyl hypochlorite	135	3255
N,n-Butylimidazole	152	2690
n-Butyl isocyanate	155	2485
tert-Butyl isocyanate	155	2484
tert-Butyl isopropyl benzene hydroperoxide	145	2091
Butyl mercaptan	130	2347
n-Butyl methacrylate	129P	2227

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n-Butyl methacrylate, inhibited	129P	2227
Butyl methyl ether	127	2350
tert-Butyl monoperoxymaleate	146	2099
Butyl nitrites	129	2351
tert-Butyl peroxyacetate	146	2095
tert-Butyl peroxyacetate	146	2096
tert-Butyl peroxybenzoate	146	2097
tert-Butyl peroxybenzoate	145	2098
tert-Butyl peroxybenzoate	145	2890
tert-Butyl peroxycrotonate	145	2183
Butyl peroxydicarbonate	148	2169
Butyl peroxydicarbonate	148	2170
tert-Butyl peroxydiethylacetate	148	2144
tert-Butyl peroxydiethylacetate, with tert-Butyl peroxybenzoate	145	2551
tert-Butyl peroxy-2-ethylhexanoate	148	2143
tert-Butyl peroxy-2-ethylhexanoate, not more than 50%, with phlegmatizer	148	2888
tert-Butyl peroxy-2-ethylhexanoate, with 2,2-Di-(tert-butylperoxy)butane	148	2886
tert-Butyl peroxy-2-ethylhexanoate, with 2,2-Di-(tert-butylperoxy)butane	145	2887
tert-Butyl peroxyisobutyrate	148	2142
tert-Butyl peroxyisobutyrate	148	2562
tert-Butyl peroxyisononanoate	145	2104
tert-Butyl peroxyisopropyl carbonate	146	2103
tert-Butyl peroxyneodecanoate	148	2177
tert-Butyl peroxyneodecanoate	148	2594
tert-Butyl peroxy-3-phenylphthalide	145	2596
tert-Butyl peroxypivalate	148	2110
tert-Butyl peroxy-3,5,5-trimethylhexanoate	145	2104
Butylphenols, liquid	153	2228
Butylphenols, solid	153	2229
n-Butyl phthalate	171	9095
Butyl propionates	130	1914
Butyltoluenes	131	2667
Butyltrichlorosilane	155	1747
5-tert-Butyl-2,4,6-trinitro-m-xylene	149	2956
Butyl vinyl ether, inhibited	127P	2352
1,4-Butynediol	153	2716
Butyraldehyde	129	1129
Butyraldoxime	129	2840
Butyric acid	153	2820
Butyric anhydride	156	2739
Butyronitrile	131	2411
Butyryl chloride	132	2353
Buzz	153	2810
BZ	153	2810
CA	159	1694
Cacodylic acid	151	1572
Cadmium compound	154	2570
Caesium	138	1407
Caesium hydroxide	157	2682
Caesium hydroxide, solution	154	2681
Caesium nitrate	140	1451
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Calcium, metal and alloys, pyrophoric	135	1855
Calcium, pyrophoric	135	1855
Calcium alloys, pyrophoric	135	1855
Calcium arsenate	151	1573

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Calcium arsenate and Calcium arsenite mixture, solid	**151**	1574
Calcium arsenite, solid	**151**	1574
Calcium arsenite and Calcium arsenate mixture, solid	**151**	1574
Calcium carbide	**138**	1402
Calcium chlorate	**140**	1452
Calcium chlorate, aqueous solution	**140**	2429
Calcium chlorate, solution	**140**	2429
Calcium chlorite	**140**	1453
Calcium chromate	**171**	9096
Calcium cyanamide, with more than 0.1% Calcium carbide	**138**	1403
Calcium cyanide	**157**	1575
Calcium dithionite	**135**	1923
Calcium dodecylbenzenesulfonate	**171**	9097
Calcium dodecylbenzenesulphonate	**171**	9097
Calcium hydride	**138**	1404
Calcium hydrogen sulfite, solution	**154**	2693
Calcium hydrogen sulphite, solution	**154**	2693
Calcium hydrosulfite	**135**	1923
Calcium hydrosulphite	**135**	1923
Calcium hypochlorite, dry	**140**	1748
Calcium hypochlorite, hydrated, with not less than 5.5% but not more than 10% water	**140**	2880
Calcium hypochlorite, hydrated mixture, with not less than 5.5% but not more than 10% water	**140**	2880

Name of Material	Guide No.	ID No.
Calcium hypochlorite mixture, dry, with more than 10% but not more than 39% available Chlorine	**140**	2208
Calcium hypochlorite mixture, dry, with more than 39% available Chlorine (8.8% available Oxygen)	**140**	1748
Calcium manganese silicon	**138**	2844
Calcium metal, crystalline	**138**	1401
Calcium nitrate	**140**	1454
Calcium oxide	**157**	1910
Calcium perchlorate	**140**	1455
Calcium permanganate	**140**	1456
Calcium peroxide	**140**	1457
Calcium phosphide	**139**	1360
Calcium resinate	**133**	1313
Calcium resinate, fused	**133**	1314
Calcium selenate	**151**	2630
Calcium silicide	**138**	1405
Calcium silicon	**138**	1406
Camphene	**133**	9011
Camphor	**133**	2717
Camphor, synthetic	**133**	2717
Camphor oil	**128**	1130
Caproic acid	**153**	2829
Caprylyl peroxide	**148**	2129
Caprylyl peroxide, solution	**148**	2129
Carbamate pesticide, liquid, flammable, poisonous	**131**	2758
Carbamate pesticide, liquid, flammable, toxic	**131**	2758
Carbamate pesticide, liquid, poisonous	**151**	2992
Carbamate pesticide, liquid, poisonous, flammable	**131**	2991

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Carbamate pesticide, liquid, toxic	151	2992
Carbamate pesticide, liquid, toxic, flammable	131	2991
Carbamate pesticide, solid, poisonous	151	2757
Carbamate pesticide, solid, toxic	151	2757
Carbaryl	151	2757
Carbofuran	151	2757
Carbon, activated	133	1362
Carbon, animal or vegetable origin	133	1361
Carbon bisulfide	131	1131
Carbon bisulphide	131	1131
Carbon dioxide	120	1013
Carbon dioxide, compressed	120	1013
Carbon dioxide, refrigerated liquid	120	2187
Carbon dioxide, solid	120	1845
Carbon dioxide and Ethylene oxide mixture, with more than 9% but not more than 87% Ethylene oxide	115	1041
Carbon dioxide and Ethylene oxide mixture, with more than 87% Ethylene oxide	119P	3300
Carbon dioxide and Ethylene oxide mixtures, with more than 6% Ethylene oxide	115	1041
Carbon dioxide and Ethylene oxide mixtures, with not more than 6% Ethylene oxide	126	1952
Carbon dioxide and Ethylene oxide mixtures, with not more than 9% Ethylene oxide	126	1952
Carbon dioxide and Nitrous oxide mixture	126	1015
Carbon dioxide and Oxygen mixture	122	1014
Carbon dioxide and Oxygen mixture, compressed	122	1014
Carbon disulfide	131	1131
Carbon disulphide	131	1131
Carbon monoxide	119	1016
Carbon monoxide, compressed	119	1016
Carbon monoxide and Hydrogen mixture	119	2600
Carbon monoxide and Hydrogen mixture, compressed	119	2600
Carbon monoxide, refrigerated liquid (cryogenic liquid)	168	9202
Carbon tetrabromide	151	2516
Carbon tetrachloride	151	1846
Carbonyl fluoride	125	2417
Carbonyl fluoride, compressed	125	2417
Carbonyl sulfide	119	2204
Carbonyl sulphide	119	2204
Cargo transport unit under fumigation	171	——
Castor beans, meal, pomace or flake	171	2969
Caustic alkali liquid, n.o.s.	154	1719
Caustic potash, dry, solid	154	1813
Caustic potash, liquid	154	1814
Caustic potash, solution	154	1814
Caustic soda, bead	154	1823
Caustic soda, flake	154	1823
Caustic soda, granular	154	1823
Caustic soda, solid	154	1823
Caustic soda, solution	154	1824
Cells, containing Sodium	138	3292

Name of Material	Guide No.	ID No.
Celluloid, in blocks, rods, rolls, sheets, tubes, etc., except scrap	**133**	2000
Celluloid, scrap	**135**	2002
Cement (flammable)	**128**	1133
Cement, container, linoleum, tile or wallboard, liquid	**128**	1133
Cement, leather	**128**	1133
Cement, liquid, n.o.s.	**128**	1133
Cement, pyroxylin	**128**	1133
Cement, roofing, liquid	**128**	1133
Cement, rubber	**128**	1133
Cerium, slabs, ingots or rods	**170**	1333
Cerium, turnings or gritty powder	**138**	3078
Cesium	**138**	1407
Cesium hydroxide	**157**	2682
Cesium hydroxide, solution	**154**	2681
Cesium nitrate	**140**	1451
CG	**125**	1076
Charcoal	**133**	1361
Charcoal, briquettes	**133**	1361
Charcoal, shell	**133**	1361
Charcoal, wood, ground, crushed, granulated or pulverized	**133**	1361
Charcoal screenings, made from "Pinon" wood	**133**	1361
Charcoal screenings, other than "Pinon" wood screenings	**133**	1361
Chemical kit	**154**	1760
Chemical kit	**171**	3316
Chemical kits (containing corrosive substances)	**154**	——
Chemical kits (containing flammable liquids)	**128**	——
Chemical kits (containing flammable solids)	**133**	——
Chemical kits (containing oxidizing substances)	**140**	——
Chemical kits (containing poisonous liquids)	**153**	——
Chemical kits (containing poisonous solids)	**154**	——
Chemical kits (containing toxic liquids)	**153**	——
Chemical kits (containing toxic solids)	**154**	——
Chemical sample, poisonous liquid	**151**	3315
Chemical sample, poisonous solid	**151**	3315
Chemical sample, toxic liquid	**151**	3315
Chemical sample, toxic solid	**151**	3315
Chloral, anhydrous, inhibited	**153**	2075
Chlorate, n.o.s., wet	**140**	1461
Chlorate and Borate mixtures	**140**	1458
Chlorate and Magnesium chloride mixture	**140**	1459
Chlorates, inorganic, aqueous solution, n.o.s.	**140**	3210
Chlorates, inorganic, n.o.s.	**140**	1461
Chloric acid	**140**	2626
Chloric acid, aqueous solution, with not more than 10% Chloric acid	**140**	2626
Chlorine	**124**	1017
Chlorine dioxide, hydrate, frozen	**143**	9191
Chlorine pentafluoride	**124**	2548
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Chlorites, inorganic, n.o.s.	143	1462
Chloroacetaldehyde	153	2232
Chloroacetic acid, liquid	153	1750
Chloroacetic acid, molten	153	3250
Chloroacetic acid, solid	153	1751
Chloroacetic acid, solution	153	1750
Chloroacetone, stabilized	131	1695
Chloroacetonitrile	131	2668
Chloroacetophenone	153	1697
Chloroacetophenone, liquid	153	1697
Chloroacetophenone, solid	153	1697
Chloroacetyl chloride	156	1752
Chloroanilines, liquid	152	2019
Chloroanilines, solid	152	2018
Chloroanisidines	152	2233
Chlorobenzene	130	1134
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p-Chlorobenzoyl peroxide	146	2113
p-Chlorobenzoyl peroxide	145	2114
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Chlorobenzyl chlorides	153	2235
o-Chlorobenzylidene malononitrile	153	2810
1-Chloro-3-bromopropane	159	2688
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Chlorocresols	152	2669
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3-Chloro-4-diethylamino-benzenediazonium zinc chloride	149	3033
Chlorodifluorobromomethane	126	1974
1-Chloro-1,1-difluoroethane	115	2517
Chlorodifluoroethanes	115	2517
Chlorodifluoromethane	126	1018
Chlorodifluoromethane and Chloropentafluoroethane mixture	126	1973
Chlorodinitrobenzenes	153	1577
1-Chloro-2,3-epoxypropane	131P	2023
2-Chloroethanal	153	2232
Chloroform	151	1888
Chloroformates, n.o.s.	155	2742
Chloroformates, poisonous, corrosive, flammable, n.o.s.	155	2742
Chloroformates, poisonous, corrosive, n.o.s.	154	3277
Chloroformates, toxic, corrosive, flammable, n.o.s.	155	2742
Chloroformates, toxic, corrosive, n.o.s.	154	3277
1-Chloroheptane	129	——
1-Chlorohexane	129	——
Chloromethyl chloroformate	157	2745
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3-Chloro-4-methylphenyl isocyanate	156	2236
Chloronitroanilines	153	2237
Chloronitrobenzenes	152	1578
Chloronitrobenzenes, liquid	152	1578
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Chloronitrotoluenes	152	2433
Chloronitrotoluenes, liquid	152	2433
Chloronitrotoluenes, solid	152	2433
Chloropentafluoroethane	126	1020
Chloropentafluoroethane and Chlorodifluoromethane mixture	126	1973

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Chlorophenates, liquid	**154**	2904
Chlorophenates, solid	**154**	2905
Chlorophenolates, liquid	**154**	2904
Chlorophenolates, solid	**154**	2905
Chlorophenols, liquid	**153**	2021
Chlorophenols, solid	**153**	2020
Chlorophenyltrichlorosilane	**156**	1753
Chloropicrin	**154**	1580
Chloropicrin, absorbed	**154**	1583
Chloropicrin and Methyl bromide mixture	**123**	1581
Chloropicrin and Methyl chloride mixture	**119**	1582
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Chloropicrin mixture, flammable	**131**	2929
Chloropicrin mixture, n.o.s.	**154**	1583
Chloropivaloyl chloride	**156**	9263
Chloroplatinic acid, solid	**154**	2507
Chloroprene, inhibited	**131P**	1991
1-Chloropropane	**129**	1278
2-Chloropropane	**129**	2356
3-Chloropropanol-1	**153**	2849
2-Chloropropene	**130P**	2456
2-Chloropropionic acid	**153**	2511
alpha-Chloropropionic acid	**153**	2511
2-Chloropyridine	**153**	2822
Chlorosilanes, corrosive, flammable, n.o.s.	**155**	2986
Chlorosilanes, corrosive, n.o.s.	**156**	2987
Chlorosilanes, flammable, corrosive, n.o.s.	**155**	2985

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Chlorosilanes, n.o.s.	**155**	2985
Chlorosilanes, n.o.s.	**155**	2986
Chlorosilanes, n.o.s.	**156**	2987
Chlorosilanes, n.o.s.	**139**	2988
Chlorosilanes, water-reactive, flammable, corrosive, n.o.s.	**139**	2988
Chlorosulfonic acid	**137**	1754
Chlorosulfonic acid and Sulfur trioxide mixture	**137**	1754
Chlorosulphonic acid	**137**	1754
Chlorosulphonic acid and Sulphur trioxide mixture	**137**	1754
1-Chloro-1,2,2,2-tetrafluoroethane	**126**	1021
Chlorotetrafluoroethane	**126**	1021
Chlorotetrafluoroethane and Ethylene oxide mixture, with not more than 8.8% Ethylene oxide	**126**	3297
Chlorotoluenes	**130**	2238
4-Chloro-o-toluidine hydrochloride	**153**	1579
Chlorotoluidines	**153**	2239
Chlorotoluidines, liquid	**153**	2239
Chlorotoluidines, solid	**153**	2239
1-Chloro-2,2,2-trifluoroethane	**126**	1983
Chlorotrifluoroethane	**126**	1983
Chlorotrifluoromethane	**126**	1022
Chlorotrifluoromethane and Trifluoromethane azeotropic mixture with approximately 60% Chlorotrifluoromethane	**126**	2599
Chlorpyrifos	**152**	2783
Chromic acetate	**171**	9101
Chromic acid, solid	**141**	1463
Chromic acid, solution	**154**	1755

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Chromic acid mixture, dry	**141**	1463
Chromic fluoride, solid	**154**	1756
Chromic fluoride, solution	**154**	1757
Chromic sulfate	**171**	9100
Chromic sulphate	**171**	9100
Chromium nitrate	**141**	2720
Chromium oxychloride	**137**	1758
Chromium trioxide, anhydrous	**141**	1463
Chromosulfuric acid	**154**	2240
Chromosulphuric acid	**154**	2240
Chromous chloride	**171**	9102
Cigarette lighter, with flammable gas	**115**	1057
Cigarette lighter, with flammable liquid	**127**	1226
Cigarettes, self-lighting	**133**	1867
CK	**125**	1589
Clinical waste, unspecified, n.o.s.	**158**	3291
CN	**153**	1697
Coal gas	**119**	1023
Coal gas, compressed	**119**	1023
Coal tar distillate	**128**	1137
Coal tar distillates, flammable	**128**	1136
Coal tar dye, liquid	**154**	2801
Coating solution	**127**	1139
Cobalt naphthenates, powder	**133**	2001
Cobaltous bromide	**171**	9103
Cobaltous formate	**171**	9104
Cobaltous sulfamate	**171**	9105
Cobaltous sulphamate	**171**	9105
Cobalt resinate, precipitated	**133**	1318
Cocculus	**151**	1584
Collodion	**127**	2059
Combustible liquid, n.o.s.	**128**	1993
Compound, cleaning liquid (containing Hydrochloric (muriatic) acid)	**157**	1789
Compound, cleaning liquid (containing Hydrofluoric acid)	**157**	1790
Compound, rust preventing (corrosive)	**154**	1760
Compound, rust removing (corrosive)	**154**	1760
Compound, tree or weed killing, liquid (corrosive)	**154**	1760
Compound, tree or weed killing, liquid (flammable)	**128**	1993
Compound, tree or weed killing, liquid (toxic)	**153**	2810
Compound, tree or weed killing, solid (oxidizer)	**140**	1479
Compound, vulcanizing, liquid (corrosive)	**154**	1760
Compound, vulcanizing, liquid (flammable)	**127**	1142
Compounds, cleaning, liquid (corrosive)	**154**	1760
Compounds, cleaning, liquid (flammable)	**128**	1993
Compounds, polishing, liquid, etc. (flammable)	**127**	1142
Compressed gas, flammable, n.o.s.	**115**	1954
Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone A)	**119**	1953
Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone B)	**119**	1953
Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone C)	**119**	1953

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Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone D)	**119**	1953
Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone A)	**119**	1953
Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone B)	**119**	1953
Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone C)	**119**	1953
Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone D)	**119**	1953
Compressed gas, n.o.s.	**126**	1956
Compressed gas, oxidizing, n.o.s.	**122**	3156
Compressed gas, poisonous, corrosive, n.o.s.	**123**	3304
Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)	**123**	3304
Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)	**123**	3304
Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)	**123**	3304
Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)	**123**	3304
Compressed gas, poisonous, flammable, corrosive, n.o.s.	**119**	3305
Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	**119**	3305
Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	**119**	3305
Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	**119**	3305
Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	**119**	3305
Compressed gas, poisonous, flammable, n.o.s.	**119**	1953
Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	**119**	1953
Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	**119**	1953
Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	**119**	1953
Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	**119**	1953
Compressed gas, poisonous, n.o.s.	**123**	1955
Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone A)	**123**	1955
Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	**123**	1955
Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	**123**	1955
Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone D)	**123**	1955
Compressed gas, poisonous, oxidizing, corrosive, n.o.s.	**124**	3306
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	**124**	3306

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Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	124	3306
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	124	3306
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	124	3306
Compressed gas, poisonous, oxidizing, n.o.s.	124	3303
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)	124	3303
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)	124	3303
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)	124	3303
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)	124	3303
Compressed gas, toxic, corrosive, n.o.s.	123	3304
Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)	123	3304
Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)	123	3304
Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)	123	3304
Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)	123	3304
Compressed gas, toxic, flammable, corrosive, n.o.s.	119	3305
Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	119	3305
Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	119	3305
Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	119	3305
Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	119	3305
Compressed gas, toxic, flammable, n.o.s.	119	1953
Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	119	1953
Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	119	1953
Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	119	1953
Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	119	1953
Compressed gas, toxic, n.o.s.	123	1955
Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone A)	123	1955
Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone B)	123	1955
Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone C)	123	1955
Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone D)	123	1955
Compressed gas, toxic, oxidizing, corrosive, n.o.s.	124	3306

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Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	**124**	3306
Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	**124**	3306
Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	**124**	3306
Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	**124**	3306
Compressed gas, toxic, oxidizing, n.o.s.	**124**	3303
Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)	**124**	3303
Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)	**124**	3303
Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)	**124**	3303
Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)	**124**	3303
Consumer commodity	**171**	8000
Copper acetoarsenite	**151**	1585
Copper arsenite	**151**	1586
Copper based pesticide, liquid, flammable, poisonous	**131**	2776
Copper based pesticide, liquid, flammable, toxic	**131**	2776
Copper based pesticide, liquid, poisonous	**151**	3010
Copper based pesticide, liquid, poisonous, flammable	**131**	3009
Copper based pesticide, liquid, toxic	**151**	3010

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Copper based pesticide, liquid, toxic, flammable	**131**	3009
Copper based pesticide, solid, poisonous	**151**	2775
Copper based pesticide, solid, toxic	**151**	2775
Copper chlorate	**141**	2721
Copper chloride	**154**	2802
Copper cyanide	**151**	1587
Copra	**135**	1363
Corrosive liquid, acidic, inorganic, n.o.s.	**154**	3264
Corrosive liquid, acidic, organic, n.o.s.	**153**	3265
Corrosive liquid, basic, inorganic, n.o.s.	**154**	3266
Corrosive liquid, basic, organic, n.o.s.	**153**	3267
Corrosive liquid, flammable, n.o.s.	**132**	2920
Corrosive liquid, n.o.s.	**154**	1760
Corrosive liquid, oxidizing, n.o.s.	**140**	3093
Corrosive liquid, poisonous, n.o.s.	**154**	2922
Corrosive liquid, self-heating, n.o.s.	**136**	3301
Corrosive liquid, toxic, n.o.s.	**154**	2922
Corrosive liquid, water-reactive, n.o.s.	**138**	3094
Corrosive liquid, which in contact with water emits flammable gases, n.o.s.	**138**	3094
Corrosive solid, acidic, inorganic, n.o.s.	**154**	3260
Corrosive solid, acidic, organic, n.o.s.	**154**	3261

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Corrosive solid, basic, inorganic, n.o.s.	154	3262
Corrosive solid, basic, organic, n.o.s.	154	3263
Corrosive solid, flammable, n.o.s.	134	2921
Corrosive solid, n.o.s.	154	1759
Corrosive solid, oxidizing, n.o.s.	140	3084
Corrosive solid, poisonous, n.o.s.	154	2923
Corrosive solid, self-heating, n.o.s.	136	3095
Corrosive solid, toxic, n.o.s.	154	2923
Corrosive solid, water-reactive, n.o.s.	138	3096
Corrosive solid, which in contact with water emits flammable gases, n.o.s.	138	3096
Cosmetics, liquid, n.o.s.	154	1760
Cosmetics, n.o.s.	133	1325
Cosmetics, n.o.s.	140	1479
Cosmetics, n.o.s.	128	1993
Cosmetics, solid, n.o.s.	154	1759
Cotton	133	1365
Cotton, wet	133	1365
Cotton waste, oily	133	1364
Coumaphos	152	2783
Coumarin derivative pesticide, liquid, flammable, poisonous	131	3024
Coumarin derivative pesticide, liquid, flammable, toxic	131	3024
Coumarin derivative pesticide, liquid, poisonous	151	3026
Coumarin derivative pesticide, liquid, poisonous, flammable	131	3025
Coumarin derivative pesticide, liquid, toxic	151	3026

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Coumarin derivative pesticide, liquid, toxic, flammable	131	3025
Coumarin derivative pesticide, solid, poisonous	151	3027
Coumarin derivative pesticide, solid, toxic	151	3027
Cresols	153	2076
Cresylic acid	153	2022
Crotonaldehyde, inhibited	131P	1143
Crotonaldehyde, stabilized	131P	1143
Crotonic acid	153	2823
Crotonic acid, liquid	153	2823
Crotonic acid, solid	153	2823
Crotonylene	128	1144
CS	153	2810
Cumene	130	1918
Cumene hydroperoxide	147	2116
Cupric acetate	171	9106
Cupric sulfate	171	9109
Cupric sulfate, ammoniated	171	9110
Cupric sulphate	171	9109
Cupric sulphate, ammoniated	171	9110
Cupric tartrate	171	9111
Cupriethylenediamine, solution	154	1761
CX	154	2811
Cyanide solution, n.o.s.	157	1935
Cyanides, inorganic, n.o.s.	157	1588
Cyanides, inorganic, solid, n.o.s.	157	1588
Cyanogen	119	1026
Cyanogen, liquefied	119	1026
Cyanogen bromide	157	1889
Cyanogen chloride, inhibited	125	1589
Cyanogen gas	119	1026

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Cyanuric chloride	**157**	2670
Cyclobutane	**115**	2601
Cyclobutyl chloroformate	**155**	2744
1,5,9-Cyclododecatriene	**153**	2518
Cycloheptane	**128**	2241
Cycloheptatriene	**131**	2603
Cycloheptene	**128**	2242
Cyclohexane	**128**	1145
Cyclohexanethiol	**131**	3054
Cyclohexanone	**127**	1915
Cyclohexanone peroxide, not more than 72% as a paste	**147**	2896
Cyclohexanone peroxide, not more than 72% in solution	**147**	2118
Cyclohexanone peroxide, not more than 90%, with not less than 10% water	**147**	2119
Cyclohexene	**130**	2256
Cyclohexenyltrichlorosilane	**156**	1762
Cyclohexyl acetate	**130**	2243
Cyclohexylamine	**132**	2357
Cyclohexyl isocyanate	**155**	2488
Cyclohexyl mercaptan	**131**	3054
Cyclohexyltrichlorosilane	**156**	1763
Cyclooctadiene phosphines	**135**	2940
Cyclooctadienes	**130P**	2520
Cyclooctatetraene	**128P**	2358
Cyclopentane	**128**	1146
Cyclopentanol	**129**	2244
Cyclopentanone	**127**	2245
Cyclopentene	**128**	2246
Cyclopropane	**115**	1027
Cyclopropane, liquefied	**115**	1027
Cymenes	**130**	2046

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DA	**151**	1699
Dangerous goods in apparatus	**171**	8001
Dangerous goods in machinery	**171**	8001
DC	**153**	2810
DDT	**151**	2761
Decaborane	**134**	1868
Decahydronaphthalene	**130**	1147
n-Decane	**128**	2247
Decanoyl peroxide	**148**	2120
Denatured alcohol	**127**	1987
Denatured alcohol (toxic)	**131**	1986
Deuterium	**115**	1957
Deuterium, compressed	**115**	1957
Devices, small, hydrocarbon gas powered, with release device	**115**	3150
Diacetone alcohol	**129**	1148
Diacetone alcohol peroxides	**148**	2163
Diacetyl	**127**	2346
Diallylamine	**132**	2359
Diallyl ether	**131P**	2360
4,4'-Diaminodiphenylmethane	**153**	2651
Di-n-amylamine	**131**	2841
Diazinon	**152**	2783
2-Diazo-1-naphthol-4-sulfochloride	**149**	3042
2-Diazo-1-naphthol-4-sulphochloride	**149**	3042
2-Diazo-1-naphthol-5-sulfochloride	**149**	3043
2-Diazo-1-naphthol-5-sulphochloride	**149**	3043
Dibenzyldichlorosilane	**156**	2434
Dibenzyl peroxydicarbonate	**148**	2149
Diborane	**119**	1911

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Diborane, compressed	119	1911
Diborane mixtures	119	1911
Dibromobenzene	129	2711
1,2-Dibromobutan-3-one	154	2648
Dibromochloropropanes	159	2872
Dibromodifluoromethane	171	1941
Dibromomethane	160	2664
Di-n-butylamine	132	2248
Dibutylaminoethanol	153	2873
Di-(4-tert-butylcyclohexyl)-peroxydicarbonate	148	2154
Di-(4-tert-butylcyclohexyl)-peroxydicarbonate	148	2894
Dibutyl ethers	127	1149
Di-tert-butyl peroxide	145	2102
2,2-Di-(tert-butylperoxy)butane	146	2111
1,1-Di-(tert-butylperoxy)-cyclohexane	146	2179
1,1-Di-(tert-butylperoxy)-cyclohexane	146	2180
1,1-Di-(tert-butylperoxy)-cyclohexane	145	2885
1,1-Di-(tert-butylperoxy)-cyclohexane	145	2897
Di-(sec-butyl)peroxydicarbonate	148	2150
Di-(sec-butyl)peroxydicarbonate	148	2151
1,3-Di-(2-tert-butylperoxy-isopropyl)benzene and 1,4-Di-(2-tert-butylperoxy-isopropyl)benzene mixtures	145	2112
1,4-Di-(2-tert-butylperoxy-isopropyl)benzene and 1,3-Di-(2-tert-butylperoxy-isopropyl)benzene mixtures	145	2112
Di-(tert-butylperoxy)phthalate	146	2106
Di-(tert-butylperoxy)phthalate	145	2107

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Di-(tert-butylperoxy)phthalate	145	2108
2,2-Di-(tert-butylperoxy)-propane	145	2883
2,2-Di-(tert-butylperoxy)-propane	145	2884
1,1-Di-(tert-butylperoxy)-3,3,5-trimethyl cyclohexane	146	2145
1,1-Di-(tert-butylperoxy)-3,3,5-trimethyl cyclohexane	145	2146
1,1-Di-(tert-butylperoxy)-3,3,5-trimethyl cyclohexane	145	2147
Dicetyl peroxydicarbonate	148	2164
Dicetyl peroxydicarbonate, not more than 42%, in water	148	2895
Dichloroacetic acid	153	1764
1,3-Dichloroacetone	153	2649
Dichloroacetyl chloride	156	1765
Dichloroanilines	153	1590
Dichloroanilines, liquid	153	1590
Dichloroanilines, solid	153	1590
m-Dichlorobenzene	152	——
o-Dichlorobenzene	152	1591
p-Dichlorobenzene	152	1592
2,4-Dichlorobenzoyl peroxide	146	2137
2,4-Dichlorobenzoyl peroxide	145	2138
2,4-Dichlorobenzoyl peroxide	145	2139
Dichlorobutene	132	2920
Dichlorobutene	132	2924
Dichloro-(2-chlorovinyl) arsine	153	2810
2,2'-Dichlorodiethyl ether	152	1916
Dichlorodifluoroethylene	160	9018
Dichlorodifluoromethane	126	1028
Dichlorodifluoromethane and Difluoroethane azeotropic mixture with approximately 74% Dichlorodifluoromethane	126	2602

Name of Material	Guide No.	ID No.
Dichlorodifluoromethane and Ethylene oxide mixture, with not more than 12.5% Ethylene oxide	**126**	3070
Dichlorodifluoromethane and Ethylene oxide mixtures, with not more than 12% Ethylene oxide	**126**	3070
Dichlorodimethyl ether, symmetrical	**153**	2249
Dichlorodiphenyltrichloroethane (DDT)	**151**	2761
1,1-Dichloroethane	**130**	2362
1,2-Dichloroethylene	**130P**	1150
Dichloroethylene	**130P**	1150
Dichloroethyl ether	**152**	1916
1,1-Dichloro-1-fluoroethane	**160**	9274
Dichlorofluoromethane	**126**	1029
Dichloroisocyanuric acid, dry	**140**	2465
Dichloroisocyanuric acid salts	**140**	2465
Dichloroisopropyl ether	**153**	2490
Dichloromethane	**160**	1593
1,1-Dichloro-1-nitroethane	**153**	2650
Dichloropentanes	**130**	1152
2,4-Dichlorophenoxyacetic acid	**152**	2765
Dichlorophenyl isocyanates	**156**	2250
Dichlorophenyltrichlorosilane	**156**	1766
1,2-Dichloropropane	**130**	1279
Dichloropropane	**130**	1279
1,3-Dichloropropanol-2	**153**	2750
Dichloropropenes	**132**	2047
2,2-Dichloropropionic acid	**154**	1760
Dichlorosilane	**119**	2189
1,2-Dichloro-1,1,2,2-tetrafluoroethane	**126**	1958
Dichlorotetrafluoroethane	**126**	1958
3,5-Dichloro-2,4,6-trifluoropyridine	**151**	9264
Dichlorvos	**152**	2783
Dicumyl peroxide	**145**	2121
Dicycloheptadiene	**127P**	2251
Dicyclohexylamine	**153**	2565
Dicyclohexylammonium nitrite	**133**	2687
Dicyclohexyl peroxydicarbonate	**148**	2152
Dicyclohexyl peroxydicarbonate	**148**	2153
Dicyclopentadiene	**129**	2048
2,2-Di-(4,4-di-tert-butyl-peroxycyclohexyl)propane	**145**	2168
1,2-Di-(dimethylamino)ethane	**129**	2372
Didymium nitrate	**140**	1465
Dieldrin	**151**	2761
Diesel fuel	**128**	1202
Diesel fuel	**128**	1993
Diethoxymethane	**127**	2373
2,5-Diethoxy-4-morpholino-benzenediazonium zinc chloride	**150**	3036
3,3-Diethoxypropene	**127**	2374
Diethylamine	**132**	1154
2-Diethylaminoethanol	**132**	2686
Diethylaminoethanol	**132**	2686
3-Diethylaminopropylamine	**132**	2684
Diethylaminopropylamine	**132**	2684
N,N-Diethylaniline	**153**	2432
Diethylbenzene	**130**	2049
Diethyl carbonate	**127**	2366
Diethyldichlorosilane	**155**	1767
Diethylenetriamine	**154**	2079
Diethyl ether	**127**	1155

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N,N-Diethylethylenediamine	**132**	2685
Di-(2-ethylhexyl)-peroxydicarbonate	**148**	2122
Di-(2-ethylhexyl)-peroxydicarbonate	**148**	2123
Di-(2-ethylhexyl)phosphoric acid	**153**	1902
Diethyl ketone	**127**	1156
p-Diethylnitrosoaniline	**136**	–––
Diethyl peroxydicarbonate	**148**	2175
Diethyl sulfate	**152**	1594
Diethyl sulfide	**129**	2375
Diethyl sulphate	**152**	1594
Diethyl sulphide	**129**	2375
Diethylthiophosphoryl chloride	**155**	2751
Diethylzinc	**135**	1366
Difluorochloroethanes	**115**	2517
1,1-Difluoroethane	**115**	1030
Difluoroethane	**115**	1030
Difluoroethane and Dichlorodifluoromethane azeotropic mixture with approximately 74% dichlorodifluoromethane	**126**	2602
1,1-Difluoroethylene	**116P**	1959
Difluoromethane	**115**	3252
Difluorophosphoric acid, anhydrous	**154**	1768
2,2-Dihydroperoxypropane	**146**	2178
2,3-Dihydropyran	**127**	2376
Di-(1-hydroxycyclohexyl)-peroxide	**145**	2148
Diisobutylamine	**132**	2361
Diisobutylene, isomeric compounds	**127**	2050
Diisobutyl ketone	**127**	1157
Diisobutyryl peroxide	**148**	2182
Diisooctyl acid phosphate	**153**	1902
Diisopropylamine	**132**	1158
Diisopropylbenzene hydroperoxide	**145**	2171
Diisopropyl ether	**127**	1159
Diisotridecyl peroxydicarbonate	**148**	2889
Diketene, inhibited	**131P**	2521
1,1-Dimethoxyethane	**127**	2377
1,2-Dimethoxyethane	**127**	2252
Dimethylamine, anhydrous	**118**	1032
Dimethylamine, aqueous solution	**129**	1160
Dimethylamine, solution	**129**	1160
2-Dimethylaminoacetonitrile	**131**	2378
4-Dimethylamino-6-(2-dimethylaminoethoxy)toluene-2-diazonium zinc chloride	**150**	3039
2-Dimethylaminoethanol	**132**	2051
2-Dimethylaminoethyl acrylate	**152**	3302
2-Dimethylaminoethyl methacrylate	**153P**	2522
Dimethylaminoethyl methacrylate	**153P**	2522
N,N-Dimethylaniline	**153**	2253
Di-(2-methylbenzoyl)peroxide	**148**	2593
2,3-Dimethylbutane	**128**	2457
1,3-Dimethylbutylamine	**132**	2379
Dimethylcarbamoyl chloride	**156**	2262
Dimethyl carbonate	**129**	1161
Dimethyl chlorothiophosphate	**156**	2267
Dimethylcyclohexanes	**128**	2263
Dimethylcyclohexylamine	**132**	2264

Name of Material	Guide No.	ID No.
2,5-Dimethyl-2,5-di-(benzoylperoxy)hexane	**146**	2172
2,5-Dimethyl-2,5-di-(benzoylperoxy)hexane	**145**	2173
2,5-Dimethyl-2,5-di-(tert-butylperoxy)hexane	**145**	2155
2,5-Dimethyl-2,5-di-(tert-butylperoxy)hexane	**145**	2156
2,5-Dimethyl-2,5-di-(tert-butylperoxy)hexyne-3	**146**	2158
2,5-Dimethyl-2,5-di-(tert-butylperoxy)hexyne-3, with not more than 52% Peroxide in inert solid	**145**	2159
Dimethyldichlorosilane	**155**	1162
Dimethyldiethoxysilane	**127**	2380
2,5-Dimethyl-2,5-di-(2-ethyl-hexanoylperoxy)hexane	**148**	2157
2,5-Dimethyl-2,5-dihydroperoxy hexane, not more than 82% with water	**146**	2174
Dimethyldioxanes	**128**	2707
Dimethyl disulfide	**130**	2381
Dimethyl disulphide	**130**	2381
Dimethylethanolamine	**132**	2051
Dimethyl ether	**115**	1033
N,N-Dimethylformamide	**129**	2265
Dimethylhexane dihydroperoxide, with 18% or more water	**146**	2174
1,1-Dimethylhydrazine	**131**	1163
1,2-Dimethylhydrazine	**131**	2382
Dimethylhydrazine, symmetrical	**131**	2382
Dimethylhydrazine, unsymmetrical	**131**	1163
Dimethyl phosphorochloridothioate	**156**	2267

Name of Material	Guide No.	ID No.
2,2-Dimethylpropane	**115**	2044
Dimethyl-N-propylamine	**132**	2266
Dimethyl sulfate	**156**	1595
Dimethyl sulfide	**130**	1164
Dimethyl sulphate	**156**	1595
Dimethyl sulphide	**130**	1164
Dimethyl thiophosphoryl chloride	**156**	2267
Dimethylzinc	**135**	1370
Dimyristyl peroxydicarbonate	**148**	2595
Dimyristyl peroxydicarbonate, not more than 42%, in water	**148**	2892
Dinitroanilines	**153**	1596
Dinitrobenzenes	**152**	1597
Dinitrochlorobenzene	**153**	1577
Dinitro-o-cresol	**153**	1598
Dinitrocyclohexylphenol	**153**	9026
Dinitrogen tetroxide	**124**	1067
Dinitrogen tetroxide, liquefied	**124**	1067
Dinitrogen tetroxide and Nitric oxide mixture	**124**	1975
Dinitrophenol, solution	**153**	1599
Dinitrophenol, wetted with not less than 15% water	**113**	1320
Dinitrophenolates, wetted with not less than 15% water	**113**	1321
Dinitroresorcinol, wetted with not less than 15% water	**113**	1322
N,N'-Dinitroso-N,N'-dimethyl terephthalamide	**149**	2973
N,N'-Dinitrosopentamethylene tetramine	**149**	2972
Dinitrotoluenes	**152**	2038
Dinitrotoluenes, liquid	**152**	2038
Dinitrotoluenes, molten	**152**	1600
Dinitrotoluenes, solid	**152**	2038

Name of Material	Guide No.	ID No.
Dioxane	**127**	1165
Dioxolane	**127**	1166
Dipentene	**128**	2052
Diphenylamine chloroarsine	**154**	1698
Diphenylchloroarsine	**151**	1699
Diphenylchloroarsine, liquid	**151**	1699
Diphenylchloroarsine, solid	**151**	1699
Diphenylcyanoarsine	**153**	2810
Diphenyldichlorosilane	**156**	1769
Diphenylmethane-4,4'-diisocyanate	**156**	2489
Diphenylmethyl bromide	**153**	1770
Diphenyloxide-4,4'-disulfohydrazide	**149**	2951
Diphenyloxide-4,4'-disulphohydrazide	**149**	2951
Diphosgene	**125**	1076
Dipicryl sulfide, wetted with not less than 10% water	**113**	2852
Dipicryl sulphide, wetted with not less than 10% water	**113**	2852
Dipropylamine	**132**	2383
4-Dipropylaminobenzene-diazonium zinc chloride	**149**	3034
Di-n-propyl ether	**127**	2384
Dipropyl ether	**127**	2384
Dipropyl ketone	**127**	2710
Di-n-propyl peroxydicarbonate	**148**	2176
Disinfectant, liquid, corrosive, n.o.s.	**153**	1903
Disinfectant, liquid, n.o.s.	**128**	1993
Disinfectant, liquid, poisonous, n.o.s.	**151**	3142
Disinfectant, liquid, toxic, n.o.s.	**151**	3142
Disinfectant, solid, poisonous, n.o.s.	**151**	1601

Name of Material	Guide No.	ID No.
Disinfectant, solid, toxic, n.o.s.	**151**	1601
Disinfectants, corrosive, liquid, n.o.s.	**153**	1903
Disinfectants, liquid, n.o.s. (poisonous)	**151**	3142
Disinfectants, solid, n.o.s. (poisonous)	**151**	1601
Disodium trioxosilicate	**154**	3253
Disodium trioxosilicate, pentahydrate	**154**	3253
Dispersant gas, n.o.s.	**126**	1078
Dispersant gas, n.o.s. (flammable)	**115**	1954
Distearyl peroxydicarbonate	**145**	2592
Disulfoton	**152**	2783
Dithiocarbamate pesticide, liquid, flammable, poisonous	**131**	2772
Dithiocarbamate pesticide, liquid, flammable, toxic	**131**	2772
Dithiocarbamate pesticide, liquid, poisonous	**151**	3006
Dithiocarbamate pesticide, liquid, poisonous, flammable	**131**	3005
Dithiocarbamate pesticide, liquid, toxic	**151**	3006
Dithiocarbamate pesticide, liquid, toxic, flammable	**131**	3005
Dithiocarbamate pesticide, solid, poisonous	**151**	2771
Dithiocarbamate pesticide, solid, toxic	**151**	2771
Di-(3,5,5-trimethyl-1,2-dioxolanyl-3)peroxide	**148**	2597
Divinyl ether, inhibited	**131P**	1167
DM	**154**	1698
Dodecylbenzenesulfonic acid	**153**	2584
Dodecylbenzenesulphonic acid	**153**	2584

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Dodecyltrichlorosilane	**156**	1771
DP	**125**	1076
Driers, paint or varnish, liquid, n.o.s.	**127**	1168
Drugs, liquid, n.o.s.	**154**	1760
Drugs, liquid, n.o.s.	**153**	2810
Drugs, n.o.s.	**133**	1325
Drugs, n.o.s.	**140**	1479
Drugs, n.o.s.	**128**	1993
Drugs, solid, n.o.s.	**154**	1759
Drugs, solid, n.o.s.	**154**	2811
Dry ice	**120**	1845
Dye, liquid, corrosive, n.o.s.	**154**	2801
Dye, liquid, poisonous, n.o.s.	**151**	1602
Dye, liquid, toxic, n.o.s.	**151**	1602
Dye, solid, corrosive, n.o.s.	**154**	3147
Dye, solid, poisonous, n.o.s.	**151**	3143
Dye, solid, toxic, n.o.s.	**151**	3143
Dye intermediate, liquid, corrosive, n.o.s.	**154**	2801
Dye intermediate, liquid, poisonous, n.o.s.	**151**	1602
Dye intermediate, liquid, toxic, n.o.s.	**151**	1602
Dye intermediate, solid, corrosive, n.o.s.	**154**	3147
Dye intermediate, solid, poisonous, n.o.s.	**151**	3143
Dye intermediate, solid, toxic, n.o.s.	**151**	3143
ED	**151**	1892
EDTA	**171**	9117
Elevated temperature liquid, flammable, n.o.s., with flash point above 37.8°C (100°F), at or above its flash point	**128**	3256

Name of Material	Guide No.	ID No.
Elevated temperature liquid, flammable, n.o.s., with flash point above 60.5°C (141°F), at or above its flash point	**128**	3256
Elevated temperature liquid, n.o.s., at or above 100°C (212°F) and below its flash point	**128**	3257
Elevated temperature material, liquid, n.o.s., (at or above 100°C (212°F) and below its flash point)	**128**	9259
Elevated temperature solid, n.o.s., at or above 240°C (464°F)	**171**	3258
Endosulfan	**151**	2761
Engine starting fluid	**115**	1960
Engines, internal combustion, flammable gas powered	**128**	3166
Engines, internal combustion, flammable liquid powered	**128**	3166
Engines, internal combustion, including when fitted in machinery or vehicles	**128**	3166
Environmentally hazardous substances, liquid, n.o.s.	**171**	3082
Environmentally hazardous substances, solid, n.o.s.	**171**	3077
Epibromohydrin	**131**	2558
Epichlorohydrin	**131P**	2023
1,2-Epoxy-3-ethoxypropane	**127**	2752
Esters, n.o.s.	**127**	3272
Etching acid, liquid, n.o.s.	**157**	1790
Ethane	**115**	1035
Ethane, compressed	**115**	1035
Ethane, refrigerated liquid	**115**	1961
Ethane-Propane mixture, refrigerated liquid	**115**	1961

Name of Material	Guide No.	ID No.
Ethanol	**127**	1170
Ethanol, solution	**127**	1170
Ethanolamine	**153**	2491
Ethanolamine, solution	**153**	2491
Ethers, n.o.s.	**127**	3271
Ethion	**152**	2783
Ethyl acetate	**129**	1173
Ethylacetylene, inhibited	**116P**	2452
Ethyl acrylate, inhibited	**129P**	1917
Ethyl alcohol	**127**	1170
Ethyl alcohol, solution	**127**	1170
Ethylamine	**118**	1036
Ethylamine, aqueous solution, with not less than 50% but not more than 70% Ethylamine	**132**	2270
Ethyl amyl ketone	**127**	2271
2-Ethylaniline	**153**	2273
N-Ethylaniline	**153**	2272
Ethylbenzene	**129**	1175
N-Ethyl-N-benzylaniline	**153**	2274
N-Ethylbenzyltoluidines	**153**	2753
Ethyl borate	**129**	1176
Ethyl bromide	**131**	1891
Ethyl bromoacetate	**155**	1603
2-Ethylbutanol	**129**	2275
2-Ethylbutyl acetate	**129**	1177
Ethylbutyl acetate	**129**	1177
Ethyl butyl ether	**127**	1179
2-Ethylbutyraldehyde	**129**	1178
Ethyl butyrate	**129**	1180
Ethyl chloride	**115**	1037
Ethyl chloroacetate	**155**	1181
Ethyl chloroformate	**155**	1182

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Ethyl 2-chloropropionate	**132**	2935
Ethyl chlorothioformate	**155**	2826
Ethyl crotonate	**129**	1862
Ethyl cyanoacetate	**156**	2666
Ethyl-3,3-di-(tert-butylperoxy)butyrate	**146**	2184
Ethyl-3,3-di-(tert-butylperoxy)butyrate	**145**	2598
Ethyl-3,3-di-(tert-butylperoxy)butyrate, not more than 77% in solution	**145**	2185
Ethyldichloroarsine	**151**	1892
Ethyldichlorosilane	**139**	1183
O-Ethyl S-(2-diisopropylaminoethyl) methylphosphonothiolate	**153**	2810
Ethyl N,N-dimethylphosphoramidocyanidate	**153**	2810
Ethylene	**116P**	1962
Ethylene, Acetylene and Propylene in mixture, refrigerated liquid containing at least 71.5% Ethylene with not more than 22.5% Acetylene and not more than 6% Propylene	**116**	3138
Ethylene, compressed	**116P**	1962
Ethylene, refrigerated liquid (cryogenic liquid)	**115**	1038
Ethylene chlorohydrin	**131**	1135
Ethylenediamine	**132**	1604
Ethylenediaminetetraacetic acid	**171**	9117
Ethylene dibromide	**154**	1605
Ethylene dibromide and Methyl bromide mixture, liquid	**151**	1647
Ethylene dichloride	**129**	1184
Ethylene glycol diethyl ether	**127**	1153
Ethylene glycol monobutyl ether	**152**	2369

Name of Material	Guide No.	ID No.
Ethylene glycol monoethyl ether	127	1171
Ethylene glycol monoethyl ether acetate	129	1172
Ethylene glycol monomethyl ether	127	1188
Ethylene glycol monomethyl ether acetate	129	1189
Ethyleneimine, inhibited	131P	1185
Ethylene oxide	119P	1040
Ethylene oxide and Carbon dioxide mixture, with more than 9% but not more than 87% Ethylene oxide	115	1041
Ethylene oxide and Carbon dioxide mixture, with more than 87% Ethylene oxide	119P	3300
Ethylene oxide and Carbon dioxide mixtures, with more than 6 % Ethylene oxide	115	1041
Ethylene oxide and Carbon dioxide mixtures, with not more than 6% Ethylene oxide	126	1952
Ethylene oxide and Carbon dioxide mixtures, with not more than 9% Ethylene oxide	126	1952
Ethylene oxide and Chlorotetrafluoroethane mixture, with not more than 8.8% Ethylene oxide	126	3297
Ethylene oxide and Dichlorodifluoromethane mixture, with not more than 12.5% Ethylene oxide	126	3070
Ethylene oxide and Dichlorodifluoromethane mixtures, with not more than 12% Ethylene oxide	126	3070
Ethylene oxide and Pentafluoroethane mixture, with not more than 7.9% Ethylene oxide	126	3298

Name of Material	Guide No.	ID No.
Ethylene oxide and Propylene oxide mixture, with not more than 30% Ethylene oxide	129P	2983
Ethylene oxide and Tetrafluoroethane mixture, with not more than 5.6% Ethylene oxide	126	3299
Ethylene oxide with Nitrogen	119P	1040
Ethyl ether	127	1155
Ethyl fluoride	115	2453
Ethyl formate	129	1190
Ethylhexaldehydes	129	1191
2-Ethylhexylamine	132	2276
2-Ethylhexyl chloroformate	156	2748
Ethyl isobutyrate	129	2385
Ethyl isocyanate	155	2481
Ethyl lactate	129	1192
Ethyl mercaptan	130	2363
Ethyl methacrylate	129P	2277
Ethyl methacrylate, inhibited	129P	2277
Ethyl methyl ether	115	1039
Ethyl methyl ketone	127	1193
Ethyl nitrate	128	1993
Ethyl nitrite, solution	131	1194
Ethyl orthoformate	129	2524
Ethyl oxalate	156	2525
Ethylphenyldichlorosilane	156	2435
Ethyl phosphonothioic dichloride, anhydrous	154	2927
Ethyl phosphonous dichloride, anhydrous	135	2845
Ethyl phosphorodichloridate	154	2927
1-Ethylpiperidine	132	2386
Ethyl propionate	129	1195
2-Ethyl-3-propylacrolein	153	——

Name of Material	Guide No.	ID No.
Ethyl propyl ether	**127**	2615
Ethyl silicate	**132**	1292
Ethylsulfuric acid	**156**	2571
Ethylsulphuric acid	**156**	2571
N-Ethyltoluidines	**153**	2754
Ethyltrichlorosilane	**155**	1196
Etiologic agent, n.o.s.	**158**	2814
Explosive A	**112**	——
Explosive B	**112**	——
Explosive C	**114**	——
Explosives, division 1.1, 1.2, 1.3, 1.5 or 1.6	**112**	——
Explosives, division 1.4	**114**	——
Extracts, aromatic, liquid	**127**	1169
Extracts, flavoring, liquid	**127**	1197
Extracts, flavouring, liquid	**127**	1197
Fabrics, animal, synthetic or vegetable, n.o.s., with oil	**133**	1373
Fabrics impregnated with weakly nitrated Nitrocellulose, n.o.s.	**133**	1353
Ferric ammonium citrate	**171**	9118
Ferric ammonium oxalate	**171**	9119
Ferric arsenate	**151**	1606
Ferric arsenite	**151**	1607
Ferric chloride	**157**	1773
Ferric chloride, anhydrous	**157**	1773
Ferric chloride, solution	**154**	2582
Ferric fluoride	**171**	9120
Ferric nitrate	**140**	1466
Ferric sulfate	**171**	9121
Ferric sulphate	**171**	9121
Ferrocerium	**170**	1323
Ferrosilicon	**139**	1408
Ferrous ammonium sulfate	**171**	9122
Ferrous ammonium sulphate	**171**	9122
Ferrous arsenate	**151**	1608
Ferrous chloride, solid	**154**	1759
Ferrous chloride, solution	**154**	1760
Ferrous metal borings, shavings, turnings or cuttings	**170**	2793
Ferrous sulfate	**171**	9125
Ferrous sulphate	**171**	9125
Fertilizer, ammoniating solution, with free Ammonia	**125**	1043
Fiber, animal, synthetic or vegetable, n.o.s., with oil	**133**	1373
Fiber, animal or vegetable, n.o.s., burnt, wet or damp	**133**	1372
Fibers	**133**	1372
Fibers impregnated with weakly nitrated Nitrocellulose, n.o.s.	**133**	1353
Fibres, animal, synthetic or vegetable, n.o.s., with oil	**133**	1373
Fibres, animal or vegetable, burnt, wet or damp	**133**	——
Fibres, vegetable, dry	**133**	——
Fibres impregnated with weakly nitrated Nitrocellulose, n.o.s.	**133**	1353
Film	**133**	1324
Films, nitrocellulose base	**133**	1324
Fire extinguisher charges, corrosive liquid	**154**	1774
Fire extinguishers with compressed gas	**126**	1044
Fire extinguishers with liquefied gas	**126**	1044
Firelighters, solid, with flammable liquid	**133**	2623
First aid kit	**171**	3316
Fish meal, stabilized	**171**	2216

Name of Material	Guide No.	ID No.
Fish meal, unstabilized	**133**	1374
Fish meal containing 6% to 12% water	**171**	2216
Fish meal containing less than 6% or more than 12% water	**133**	1374
Fish scrap, stabilized	**171**	2216
Fish scrap, unstabilized	**133**	1374
Fish scrap containing 6% to 12% water	**171**	2216
Fish scrap containing less than 6% or more than 12% water	**133**	1374
Flame retardant compound, liquid (corrosive)	**154**	1760
Flammable gas in lighter for cigars, cigarettes, etc.	**115**	1057
Flammable liquid, corrosive, n.o.s	**132**	2924
Flammable liquid, n.o.s.	**128**	1993
Flammable liquid, poisonous, corrosive, n.o.s.	**131**	3286
Flammable liquid, poisonous, n.o.s.	**131**	1992
Flammable liquid, toxic, corrosive, n.o.s.	**131**	3286
Flammable liquid, toxic, n.o.s.	**131**	1992
Flammable liquid preparations, n.o.s.	**127**	1142
Flammable liquids, elevated temperature material, n.o.s.	**128**	9276
Flammable solid, corrosive, inorganic, n.o.s.	**134**	3180
Flammable solid, corrosive, n.o.s.	**134**	2925
Flammable solid, corrosive, organic, n.o.s.	**134**	2925
Flammable solid, inorganic, corrosive, n.o.s.	**134**	3180
Flammable solid, inorganic, n.o.s.	**133**	3178
Flammable solid, n.o.s.	**133**	1325
Flammable solid, organic, molten, n.o.s.	**133**	3176
Flammable solid, organic, n.o.s.	**133**	1325
Flammable solid, oxidizing, n.o.s.	**140**	3097
Flammable solid, poisonous, inorganic, n.o.s.	**134**	3179
Flammable solid, poisonous, n.o.s.	**134**	2926
Flammable solid, poisonous, organic, n.o.s.	**134**	2926
Flammable solid, toxic, inorganic, n.o.s.	**134**	3179
Flammable solid, toxic, organic, n.o.s.	**134**	2926
Flue dust, poisonous	**154**	2811
Fluoboric acid	**154**	1775
Fluorine	**124**	1045
Fluorine, compressed	**124**	1045
Fluorine, refrigerated liquid (cryogenic liquid)	**167**	9192
Fluoroacetic acid	**154**	2642
Fluoroanilines	**153**	2941
Fluorobenzene	**130**	2387
Fluoroboric acid	**154**	1775
Fluorophosphoric acid, anhydrous	**154**	1776
Fluorosilicates, n.o.s.	**151**	2856
Fluorosilicic acid	**154**	1778
Fluorosulfonic acid	**137**	1777
Fluorosulphonic acid	**137**	1777
Fluorotoluenes	**130**	2388

Name of Material	Guide No.	ID No.
Fluosilicic acid	154	1778
Formaldehyde, solution, flammable	132	1198
Formaldehyde, solutions (Formalin)	132	1198
Formaldehyde, solutions (Formalin) (corrosive)	132	2209
Formic acid	153	1779
Fuel, aviation, turbine engine	128	1863
Fuel oil	128	1202
Fuel oil	128	1993
Fuel oil, no. 1,2,4,5,6	128	1202
Fumaric acid	171	9126
Fumaryl chloride	156	1780
Furaldehydes	132P	1199
Furan	127	2389
Furfural	132P	1199
Furfuraldehydes	132P	1199
Furfuryl alcohol	153	2874
Furfurylamine	132	2526
Fusee (rail or highway)	133	1325
Fusel oil	127	1201
GA	153	2810
Gallium	172	2803
Gas, refrigerated liquid, flammable, n.o.s.	115	3312
Gas, refrigerated liquid, n.o.s.	120	3158
Gas, refrigerated liquid, oxidizing, n.o.s.	122	3311
Gas cartridges	115	2037
Gas drips, hydrocarbon	128	1864
Gas generator assemblies	171	8013
Gas identification set	123	9035
Gasohol	128	1203

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Gas oil	128	1202
Gasoline	128	1203
Gas sample, non-pressurized, flammable, n.o.s., not refrigerated liquid	115	3167
Gas sample, non-pressurized, poisonous, flammable, n.o.s., not refrigerated liquid	119	3168
Gas sample, non-pressurized, poisonous, n.o.s., not refrigerated liquid	123	3169
Gas sample, non-pressurized, toxic, flammable, n.o.s., not refrigerated liquid	119	3168
Gas sample, non-pressurized, toxic, n.o.s., not refrigerated liquid	123	3169
GB	153	2810
GD	153	2810
Genetically modified micro-organisms	171	3245
Genetically modified organisms	171	9278
Germane	119	2192
GF	153	2810
Glycerol alpha-monochlorohydrin	153	2689
Glycidaldehyde	131P	2622
Grenade, tear gas	159	2017
Guanidine nitrate	143	1467
H	153	2810
Hafnium powder, dry	135	2545
Hafnium powder, wetted with not less than 25% water	170	1326
Halogenated irritating liquid, n.o.s.	159	1610
Hay, wet, damp or contaminated with oil	133	1327

Name of Material	Guide No.	ID No.
Hazardous substance, liquid, n.o.s.	**171**	9188
Hazardous substance, solid, n.o.s.	**171**	9188
Hazardous waste, liquid, n.o.s.	**171**	3082
Hazardous waste, liquid, n.o.s.	**171**	9189
Hazardous waste, solid, n.o.s.	**171**	3077
Hazardous waste, solid, n.o.s.	**171**	9189
HD	**153**	2810
Heater for refrigerator car, liquid fuel type	**128**	1993
Heating oil, light	**128**	1202
Heat producing article	**171**	8038
Helium	**121**	1046
Helium, compressed	**121**	1046
Helium, refrigerated liquid (cryogenic liquid)	**120**	1963
Helium-Oxygen mixture	**122**	1980
Heptafluoropropane	**126**	3296
n-Heptaldehyde	**129**	3056
Heptanes	**128**	1206
n-Heptene	**128**	2278
Hexachloroacetone	**153**	2661
Hexachlorobenzene	**152**	2729
Hexachlorobutadiene	**151**	2279
Hexachlorocyclopentadiene	**151**	2646
Hexachloroethane	**151**	9037
Hexachlorophene	**151**	2875
Hexadecyltrichlorosilane	**156**	1781
Hexadiene	**130**	2458
Hexaethyl tetraphosphate	**151**	1611
Hexaethyl tetraphosphate, liquid	**151**	1611
Hexaethyl tetraphosphate, solid	**151**	1611

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Hexaethyl tetraphosphate and compressed gas mixture	**123**	1612
Hexaethyl tetraphosphate mixture, liquid	**152**	2783
Hexafluoroacetone	**125**	2420
Hexafluoroacetone hydrate	**151**	2552
Hexafluoroethane	**126**	2193
Hexafluoroethane, compressed	**126**	2193
Hexafluorophosphoric acid	**154**	1782
Hexafluoropropylene	**126**	1858
Hexafluoropropylene oxide	**126**	1956
Hexaldehyde	**129**	1207
Hexamethylenediamine, solid	**153**	2280
Hexamethylenediamine, solution	**153**	1783
Hexamethylene diisocyanate	**156**	2281
Hexamethyleneimine	**132**	2493
Hexamethylenetetramine	**133**	1328
3,3,6,6,9,9-Hexamethyl-1,2,4,5-tetraoxacyclononane	**146**	2165
3,3,6,6,9,9-Hexamethyl-1,2,4,5-tetraoxacyclononane	**145**	2166
3,3,6,6,9,9-Hexamethyl-1,2,4,5-tetraoxacyclononane	**145**	2167
Hexamine	**133**	1328
Hexanes	**128**	1208
Hexanoic acid	**154**	1760
Hexanoic acid	**153**	2829
Hexanols	**129**	2282
1-Hexene	**128**	2370
Hexyltrichlorosilane	**156**	1784
HL	**153**	2810
HN-1 (nitrogen mustard)	**153**	2810
HN-2	**153**	2810

Name of Material	Guide No.	ID No.
HN-3	**153**	2810
Hydrazine, anhydrous	**132**	2029
Hydrazine, aqueous solution, with not less than 37% but not more than 64% Hydrazine	**153**	2030
Hydrazine, aqueous solution, with not more than 37% Hydrazine	**152**	3293
Hydrazine, aqueous solutions, with more than 64% Hydrazine	**132**	2029
Hydrazine, aqueous solutions, with not more than 64% Hydrazine	**153**	2030
Hydrazine hydrate	**153**	2030
Hydrides, metal, n.o.s.	**138**	1409
Hydriodic acid	**154**	1787
Hydriodic acid, solution	**154**	1787
Hydrobromic acid	**154**	1788
Hydrobromic acid, solution	**154**	1788
Hydrocarbon gas, compressed, n.o.s.	**115**	1964
Hydrocarbon gas, liquefied, n.o.s.	**115**	1965
Hydrocarbon gas mixture, compressed, n.o.s.	**115**	1964
Hydrocarbon gas mixture, liquefied, n.o.s.	**115**	1965
Hydrocarbon gas refills for small devices, with release device	**115**	3150
Hydrocarbons, liquid, n.o.s.	**128**	3295
Hydrochloric acid	**157**	1789
Hydrochloric acid, mixture	**157**	1789
Hydrochloric acid, solution	**157**	1789
Hydrocyanic acid, aqueous solution, with less than 5% Hydrogen cyanide	**154**	1613
Hydrocyanic acid, aqueous solution, with not more than 20% Hydrogen cyanide	**154**	1613
Hydrocyanic acid, aqueous solutions, with more than 20% Hydrogen cyanide	**117**	1051
Hydrocyanic acid, liquefied	**117**	1051
Hydrofluoric acid	**157**	1790
Hydrofluoric acid, solution	**157**	1790
Hydrofluoric acid and Sulfuric acid mixture	**157**	1786
Hydrofluoric acid and Sulphuric acid mixture	**157**	1786
Hydrofluorosilicic acid	**154**	1778
Hydrofluosilicic acid	**154**	1778
Hydrogen	**115**	1049
Hydrogen, compressed	**115**	1049
Hydrogen, refrigerated liquid (cryogenic liquid)	**115**	1966
Hydrogen and Carbon monoxide mixture	**119**	2600
Hydrogen and Carbon monoxide mixture, compressed	**119**	2600
Hydrogen and Methane mixture, compressed	**115**	2034
Hydrogen bromide, anhydrous	**125**	1048
Hydrogen chloride, anhydrous	**125**	1050
Hydrogen chloride, refrigerated liquid	**125**	2186
Hydrogen cyanide, anhydrous, stabilized	**117**	1051
Hydrogen cyanide, anhydrous, stabilized (absorbed)	**131**	1614
Hydrogen cyanide, aqueous solution, with not more than 20% Hydrogen cyanide	**154**	1613

Name of Material	Guide No.	ID No.
Hydrogen cyanide, solution in alcohol, with not more than 45% Hydrogen cyanide	**131**	3294
Hydrogen cyanide, stabilized	**117**	1051
Hydrogen cyanide, stabilized (absorbed)	**131**	1614
Hydrogendifluorides, n.o.s.	**154**	1740
Hydrogen fluoride, anhydrous	**125**	1052
Hydrogen iodide, anhydrous	**125**	2197
Hydrogen peroxide, aqueous solution, stabilized, with more than 60% Hydrogen peroxide	**143**	2015
Hydrogen peroxide, aqueous solution, with not less than 8% but less than 20% Hydrogen peroxide	**140**	2984
Hydrogen peroxide, aqueous solution, with not less than 20% but not more than 60% Hydrogen peroxide (stabilized as necessary)	**140**	2014
Hydrogen peroxide, stabilized	**143**	2015
Hydrogen peroxide and Peroxyacetic acid mixture, with acid(s), water and not more than 5% Peroxyacetic acid, stabilized	**140**	3149
Hydrogen selenide, anhydrous	**117**	2202
Hydrogen sulfide	**117**	1053
Hydrogen sulfide, liquefied	**117**	1053
Hydrogen sulphide	**117**	1053
Hydrogen sulphide, liquefied	**117**	1053
Hydroquinone	**153**	2662
3-(2-Hydroxyethoxy)-4-pyrrolidin-1-yl benzene-diazonium zinc chloride	**150**	3035
Hydroxylamine sulfate	**154**	2865
Hydroxylamine sulphate	**154**	2865

Name of Material	Guide No.	ID No.
Hypochlorite solution	**154**	1791
Hypochlorite solution, with more than 5% available Chlorine	**154**	1791
Hypochlorites, inorganic, n.o.s.	**140**	3212
3,3'-Iminodipropylamine	**153**	2269
Infectious substance, affecting animals only	**158**	2900
Infectious substance, affecting humans	**158**	2814
Ink, printer's, flammable	**129**	1210
Insecticide, dry, n.o.s.	**151**	2588
Insecticide, liquefied gas	**126**	1968
Insecticide, liquefied gas, containing Poison A or Poison B material	**123**	1967
Insecticide, liquid, poisonous, n.o.s.	**151**	2902
Insecticide gas, flammable, n.o.s.	**115**	1954
Insecticide gas, flammable, n.o.s.	**115**	3354
Insecticide gas, n.o.s.	**126**	1968
Insecticide gas, poisonous, flammable, n.o.s.	**119**	3355
Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	**119**	3355
Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	**119**	3355
Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	**119**	3355
Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	**119**	3355
Insecticide gas, poisonous, n.o.s.	**123**	1967
Insecticide gas, toxic, flammable, n.o.s.	**119**	3355

Name of Material	Guide No.	ID No.
Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	119	3355
Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	119	3355
Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	119	3355
Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	119	3355
Insecticide gas, toxic, n.o.s.	123	1967
Iodine monochloride	157	1792
Iodine pentafluoride	144	2495
2-Iodobutane	129	2390
Iodomethylpropanes	129	2391
Iodopropanes	129	2392
IPDI	156	2290
Iron oxide, spent	135	1376
Iron pentacarbonyl	131	1994
Iron sponge, spent	135	1376
Irritating agent, n.o.s.	159	1693
Isobutane	115	1075
Isobutane	115	1969
Isobutane mixture	115	1075
Isobutane mixture	115	1969
Isobutanol	129	1212
Isobutyl acetate	129	1213
Isobutyl acrylate	130P	2527
Isobutyl acrylate, inhibited	130P	2527
Isobutyl alcohol	129	1212
Isobutyl aldehyde	129	2045
Isobutylamine	132	1214
Isobutyl chloroformate	155	2742

Name of Material	Guide No.	ID No.
Isobutylene	115	1055
Isobutylene	115	1075
Isobutyl formate	132	2393
Isobutyl isobutyrate	129	2528
Isobutyl isocyanate	155	2486
Isobutyl methacrylate	130P	2283
Isobutyl methacrylate, inhibited	130P	2283
Isobutyl propionate	129	2394
Isobutyraldehyde	129	2045
Isobutyric acid	132	2529
Isobutyric anhydride	132	2530
Isobutyronitrile	131	2284
Isobutyryl chloride	132	2395
Isocyanate solution, flammable, poisonous, n.o.s.	155	2478
Isocyanate solution, flammable, toxic, n.o.s.	155	2478
Isocyanate solution, poisonous, flammable, n.o.s.	155	3080
Isocyanate solution, poisonous, n.o.s.	155	2206
Isocyanate solution, toxic, flammable, n.o.s.	155	3080
Isocyanate solution, toxic, n.o.s.	155	2206
Isocyanate solutions, n.o.s.	155	2206
Isocyanate solutions, n.o.s.	155	2478
Isocyanate solutions, n.o.s.	155	3080
Isocyanate solutions, n.o.s. (toxic)	155	2207
Isocyanates, flammable, poisonous, n.o.s.	155	2478
Isocyanates, flammable, toxic, n.o.s.	155	2478
Isocyanates, n.o.s.	155	2206
Isocyanates, n.o.s.	155	2478

Name of Material	Guide No.	ID No.
Isocyanates, n.o.s.	**155**	3080
Isocyanates, n.o.s. (toxic)	**155**	2207
Isocyanates, poisonous, flammable, n.o.s.	**155**	3080
Isocyanates, poisonous, n.o.s.	**155**	2206
Isocyanates, toxic, flammable, n.o.s.	**155**	3080
Isocyanates, toxic, n.o.s.	**155**	2206
Isocyanatobenzotrifluorides	**156**	2285
Isoheptene	**128**	2287
Isohexene	**128**	2288
Isononanoyl peroxide	**148**	2128
Isooctane	**128**	1262
Isooctene	**128**	1216
Isopentane	**128**	1265
Isopentanoic acid	**154**	1760
Isopentenes	**128**	2371
Isophoronediamine	**153**	2289
Isophorone diisocyanate	**156**	2290
Isoprene, inhibited	**130P**	1218
Isopropanol	**129**	1219
Isopropanolamine dodecylbenzenesulfonate	**171**	9127
Isopropanolamine dodecylbenzenesulphonate	**171**	9127
Isopropenyl acetate	**129P**	2403
Isopropenylbenzene	**128**	2303
Isopropyl acetate	**129**	1220
Isopropyl acid phosphate	**153**	1793
Isopropyl alcohol	**129**	1219
Isopropylamine	**132**	1221
Isopropylbenzene	**130**	1918
Isopropyl butyrate	**129**	2405
Isopropyl chloroacetate	**155**	2947
Isopropyl chloroformate	**155**	2407
Isopropyl 2-chloropropionate	**132**	2934
Isopropyl isobutyrate	**131**	2406
Isopropyl isocyanate	**155**	2483
Isopropyl mercaptan	**130**	2402
Isopropyl methylphosphonofluoridate	**153**	2810
Isopropyl nitrate	**130**	1222
Isopropyl percarbonate, unstabilized	**148**	2133
Isopropyl peroxydicarbonate	**148**	2133
Isopropyl peroxydicarbonate	**148**	2134
Isopropyl propionate	**129**	2409
Isosorbide dinitrate mixture	**133**	2907
Isosorbide-5-mononitrate	**133**	3251
Kerosene	**128**	1223
Ketones, liquid, n.o.s.	**127**	1224
Krypton	**121**	1056
Krypton, compressed	**121**	1056
Krypton, refrigerated liquid (cryogenic liquid)	**120**	1970
L (Lewisite)	**153**	2810
Lacquer chips, dry	**133**	2557
Lauroyl peroxide	**145**	2124
Lauroyl peroxide, not more than 42%, stable dispersion, in water	**145**	2893
Leachable toxic waste	**151**	9500
Lead acetate	**151**	1616
Lead arsenates	**151**	1617
Lead arsenites	**151**	1618
Lead chloride	**151**	2291
Lead compound, soluble, n.o.s.	**151**	2291
Lead cyanide	**151**	1620
Lead dioxide	**141**	1872

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Lead fluoborate	**151**	2291
Lead fluoride	**154**	2811
Lead nitrate	**141**	1469
Lead perchlorate	**141**	1470
Lead perchlorate, solid	**141**	1470
Lead perchlorate, solution	**141**	1470
Lead peroxide	**141**	1872
Lead phosphite, dibasic	**133**	2989
Lead sulfate, with more than 3% free acid	**154**	1794
Lead sulphate, with more than 3% free acid	**154**	1794
Lewisite	**153**	2810
Life-saving appliances, not self-inflating	**171**	3072
Life-saving appliances, self-inflating	**171**	2990
Lighter refills (cigarettes) (flammable gas)	**115**	1057
Lighters (cigarettes) (flammable gas)	**115**	1057
Lighters for cigars, cigarettes etc. with lighter fluid	**127**	1226
Lighters for cigars, cigarettes (flammable liquid)	**127**	1226
Lindane	**151**	2761
Liquefied gas (nonflammable)	**121**	1058
Liquefied gas, flammable, n.o.s.	**115**	1954
Liquefied gas, flammable, n.o.s.	**115**	3161
Liquefied gas, flammable, poisonous, n.o.s.	**119**	1953
Liquefied gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone A)	**119**	1953
Liquefied gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone B)	**119**	1953

Name of Material	Guide No.	ID No.
Liquefied gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone C)	**119**	1953
Liquefied gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone D)	**119**	1953
Liquefied gas, flammable, toxic, n.o.s.	**119**	1953
Liquefied gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone A)	**119**	1953
Liquefied gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone B)	**119**	1953
Liquefied gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone C)	**119**	1953
Liquefied gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone D)	**119**	1953
Liquefied gas, n.o.s.	**126**	1956
Liquefied gas, n.o.s.	**126**	3163
Liquefied gas, oxidizing, n.o.s.	**122**	3157
Liquefied gas, poisonous, corrosive, n.o.s.	**123**	3308
Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)	**123**	3308
Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)	**123**	3308
Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)	**123**	3308
Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)	**123**	3308
Liquefied gas, poisonous, flammable, corrosive, n.o.s.	**119**	3309

Name of Material	Guide No.	ID No.
Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	**119**	3309
Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	**119**	3309
Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	**119**	3309
Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	**119**	3309
Liquefied gas, poisonous, flammable, n.o.s.	**119**	3160
Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	**119**	3160
Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	**119**	3160
Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	**119**	3160
Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	**119**	3160
Liquefied gas, poisonous, n.o.s.	**123**	1955
Liquefied gas, poisonous, n.o.s.	**123**	3162
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone A)	**123**	1955
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone A)	**123**	3162
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	**123**	1955
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	**123**	3162
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	**123**	1955
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	**123**	3162
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone D)	**123**	1955
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone D)	**123**	3162
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s.	**124**	3310
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	**124**	3310
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	**124**	3310
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	**124**	3310
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	**124**	3310
Liquefied gas, poisonous, oxidizing, n.o.s.	**124**	3307
Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)	**124**	3307
Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)	**124**	3307
Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)	**124**	3307
Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)	**124**	3307
Liquefied gas, toxic, corrosive, n.o.s.	**123**	3308
Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)	**123**	3308

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Methyl bromide	123	1062
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Methyl chloride and Methylene chloride mixture	115	1912
Methyl chloroacetate	155	2295
Methyl chloroformate	155	1238
Methyl chloromethyl ether	131	1239
Methyl 2-chloropropionate	132	2933
Methylchlorosilane	119	2534
Methyl cyanide	131	1648
Methylcyclohexane	128	2296
Methylcyclohexanols	129	2617
Methylcyclohexanone	127	2297
Methylcyclopentane	128	2298
Methyl dichloroacetate	155	2299
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Methylene chloride	160	1593
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Methyl ethyl ether	115	1039
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2-Methyl-5-ethylpyridine	153	2300
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2-Methyl-2-hepthanethiol	131	3023
5-Methylhexan-2-one	127	2302
Methylhydrazine	131	1244
Methyl iodide	151	2644
Methyl isobutyl carbinol	129	2053
Methyl isobutyl ketone	127	1245
Methyl isobutyl ketone peroxide	147	2126
Methyl isocyanate	155	2480
Methyl isopropenyl ketone, inhibited	127P	1246
Methyl isothiocyanate	131	2477
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Methyl mercaptan	117	1064
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N-Methylmorpholine	132	2535
Methylmorpholine	132	2535
Methyl nitrite	116	2455
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Methyl orthosilicate	155	2606
Methyl parathion, liquid	152	2783
Methyl parathion, liquid	152	3018
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2-Methylpentan-2-ol	129	2560
Methylphenyldichlorosilane	156	2437
Methyl phosphonic dichloride	137	9206
Methyl phosphonous dichloride	135	2845
1-Methylpiperidine	132	2399
Methyl propionate	129	1248
Methyl propyl ether	127	2612
Methyl propyl ketone	127	1249
Methyltetrahydrofuran	127	2536
Methyl trichloroacetate	156	2533
Methyltrichlorosilane	155	1250
alpha-Methylvaleraldehyde	130	2367
Methyl valeraldehyde (alpha)	130	2367
Methyl vinyl ketone	131P	1251
Methyl vinyl ketone, stabilized	131P	1251
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Morpholine	132	2054
Morpholine, aqueous mixture	154	1760
Morpholine, aqueous mixture	132	2054
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Motor fuel anti-knock mixture	131	1649
Motor spirit	128	1203
Muriatic acid	157	1789
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Naphtha	128	2553
Naphtha, petroleum	128	1255
Naphtha, solvent	128	1256
Naphthalene, crude	133	1334
Naphthalene, molten	133	2304
Naphthalene, refined	133	1334
Naphthenic acid	171	9137
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Naphthylamine (alpha)	153	2077
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Naphthylamine (beta)	153	1650
Naphthylthiourea	153	1651
Naphthylurea	153	1652
Natural gas, compressed	115	1971
Natural gas, refrigerated liquid (cryogenic liquid)	115	1972
Natural gasoline	128	1257
Neohexane	128	1208
Neon	121	1065
Neon, compressed	121	1065
Neon, refrigerated liquid (cryogenic liquid)	120	1913
Nickel ammonium sulfate	171	9138
Nickel ammonium sulphate	171	9138
Nickel carbonyl	131	1259
Nickel catalyst, dry	135	2881
Nickel chloride	151	9139
Nickel cyanide	151	1653
Nickel hydroxide	154	9140
Nickel nitrate	140	2725
Nickel nitrite	140	2726
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Nicotine	**151**	1654
Nicotine compound, liquid, n.o.s.	**151**	3144
Nicotine compound, solid, n.o.s.	**151**	1655
Nicotine hydrochloride	**151**	1656
Nicotine hydrochloride, solution	**151**	1656
Nicotine preparation, liquid, n.o.s.	**151**	3144
Nicotine preparation, solid, n.o.s.	**151**	1655
Nicotine salicylate	**151**	1657
Nicotine sulfate, solid	**151**	1658
Nicotine sulfate, solution	**151**	1658
Nicotine sulphate, solid	**151**	1658
Nicotine sulphate, solution	**151**	1658
Nicotine tartrate	**151**	1659
Nitrate, n.o.s.	**140**	1477
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Nitrating acid, spent	**157**	1826
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Nitric acid, 40% or less	**154**	1760
Nitric acid, fuming	**157**	2032
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Nitric acid, red fuming	**157**	2032
Nitric oxide	**124**	1660
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Nitric oxide and Dinitrogen tetroxide mixture	**124**	1975
Nitric oxide and Nitrogen dioxide mixture	**124**	1975
Nitric oxide and Nitrogen tetroxide mixture	**124**	1975
Nitriles, flammable, poisonous, n.o.s.	**131**	3273
Nitriles, flammable, toxic, n.o.s.	**131**	3273
Nitriles, poisonous, flammable, n.o.s.	**131**	3275
Nitriles, poisonous, n.o.s.	**151**	3276
Nitriles, toxic, flammable, n.o.s.	**131**	3275
Nitriles, toxic, n.o.s.	**151**	3276
Nitrites, inorganic, aqueous solution, n.o.s.	**140**	3219
Nitrites, inorganic, n.o.s.	**140**	2627
Nitroanilines	**153**	1661
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Nitrobenzenesulphonic acid	**153**	2305
Nitrobenzotrifluorides	**152**	2306
Nitrobromobenzene	**152**	2732
Nitrobromobenzene, liquid	**152**	2732
Nitrobromobenzene, solid	**152**	2732
Nitrocellulose, block, wet, with not less than 25% alcohol	**127**	2059
Nitrocellulose, colloided, granular or flake, wet, with not less than 20% alcohol or solvent	**127**	2059
Nitrocellulose, colloided, granular or flake, wet, with not less than 20% water	**113**	2555
Nitrocellulose, solution, flammable	**127**	2059
Nitrocellulose, solution, in a flammable liquid	**127**	2059

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Nitrocellulose, wet, with not less than 30% alcohol or solvent	113	2556
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Nitrocellulose mixture, without plasticizer, without pigment	133	2557
Nitrocellulose mixture, without plasticizer, with pigment	133	2557
Nitrocellulose mixture, with plasticizer, without pigment	133	2557
Nitrocellulose mixture, with plasticizer, with pigment	133	2557
Nitrocellulose with alcohol	113	2556
Nitrocellulose with not less than 25% alcohol	113	2556
Nitrocellulose with plasticizing substance	133	2557
Nitrocellulose with water, not less than 25% water	113	2555
Nitrochlorobenzenes, liquid	152	1578
Nitrochlorobenzenes, solid	152	1578
3-Nitro-4-chlorobenzotrifluoride	152	2307
Nitrocresols	153	2446
Nitroethane	129	2842
Nitrogen	121	1066
Nitrogen, compressed	121	1066
Nitrogen, refrigerated liquid (cryogenic liquid)	120	1977
Nitrogen and Rare gases mixture	121	1981
Nitrogen and Rare gases mixture, compressed	121	1981
Nitrogen dioxide	124	1067
Nitrogen dioxide, liquefied	124	1067
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Nitrogen peroxide, liquid	124	1067
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Nitrogen trifluoride	122	2451
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Nitroglycerin, solution in alcohol, with not more than 1% Nitroglycerin	127	1204
Nitroglycerin mixture, desensitized, liquid, flammable, n.o.s., with not more than 30% Nitroglycerin	113	3343
Nitroglycerin mixture, desensitized, liquid, n.o.s., with not more than 30% Nitroglycerin	113	3357
Nitroglycerin mixture, desensitized, solid, n.o.s., with more than 2% but not more than 10% Nitroglycerin	113	3319
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Nitroguanidine, wetted with not less than 20% water	113	1336
Nitrohydrochloric acid	157	1798
Nitromethane	129	1261
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Nitrophenols	153	1663
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p-Nitrosodimethylaniline	135	1369
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Nitrostarch, wetted with not less than 20% water	113	1337
Nitrostarch, wetted with not less than 30% solvent	113	1337
Nitrosyl chloride	125	1069
Nitrosylsulfuric acid	157	2308
Nitrosylsulphuric acid	157	2308
Nitrotoluenes	152	1664
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Organic phosphate mixed with compressed gas	**123**	1955
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Oxidizing substances, solid, poisonous, n.o.s.	**141**	3087
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Perfluoromethyl vinyl ether	**115**	3153
Perfluoro(methyl vinyl ether)	**115**	3153
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Phenoxyacetic acid derivative pesticide, liquid, toxic	153	3348
Phenoxyacetic acid derivative pesticide, liquid, toxic, flammable	131	3347
Phenoxyacetic acid derivative pesticide, solid, poisonous	153	3345
Phenoxyacetic acid derivative pesticide, solid, toxic	153	3345
Phenoxy pesticide, liquid, flammable, poisonous	131	2766
Phenoxy pesticide, liquid, flammable, toxic	131	2766
Phenoxy pesticide, liquid, poisonous	152	3000
Phenoxy pesticide, liquid, poisonous, flammable	131	2999
Phenoxy pesticide, liquid, toxic	152	3000
Phenoxy pesticide, liquid, toxic, flammable	131	2999
Phenoxy pesticide, solid, poisonous	152	2765
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Phenyl urea pesticide, liquid, poisonous	151	3002
Phenyl urea pesticide, liquid, poisonous, flammable	131	3001
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Phosphorus pentasulfide, free from yellow and white Phosphorus	**139**	1340
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Phthalimide derivative pesticide, liquid, toxic, flammable	**131**	3007
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Plastics moulding compound	171	3314
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Poisonous liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone B)	154	3289
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Poisonous liquid, flammable, n.o.s. (Inhalation Hazard Zone A)	131	2929
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Poisonous liquid, flammable, organic, n.o.s.	131	2929
Poisonous liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone A)	131	2929
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Poisonous liquid, inorganic, n.o.s. (Inhalation Hazard Zone A)	151	3287
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Poisonous liquid, n.o.s.	123	1955
Poisonous liquid, n.o.s.	153	2810
Poisonous liquid, n.o.s. (Inhalation Hazard Zone A)	153	2810
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Poisonous liquid, organic, n.o.s.	153	2810
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Poisonous liquid, which in contact with water emits flammable gases, n.o.s.	139	3123
Poisonous liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone A)	139	3123
Poisonous liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone B)	139	3123
Poisonous solid, corrosive, inorganic, n.o.s.	154	3290
Poisonous solid, corrosive, n.o.s.	154	2928
Poisonous solid, flammable, n.o.s.	134	2930
Poisonous solid, flammable, organic, n.o.s.	134	2930
Poisonous solid, inorganic, n.o.s.	151	3288
Poisonous solid, n.o.s.	154	2811
Poisonous solid, organic, n.o.s.	154	2811
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Potassium bifluoride	154	1811
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Potassium borohydride	138	1870
Potassium bromate	140	1484
Potassium chlorate	140	1485
Potassium chlorate, aqueous solution	140	2427
Potassium chlorate, solution	140	2427
Potassium chromate	171	9142
Potassium cuprocyanide	157	1679
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Potassium dichloro-s-triazinetrione, dry	140	2465
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Potassium hydrosulfite	135	1929
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Toluene sulfonic acid, solid, with not more than 5% free Sulfuric acid	**153**	2585
Toluene sulphonic acid, liquid, with more than 5% free Sulphuric acid	**153**	2584
Toluene sulphonic acid, liquid, with not more than 5% free Sulphuric acid	**153**	2586
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Triazine pesticide, liquid, poisonous	**151**	2998
Triazine pesticide, liquid, poisonous, flammable	**131**	2997
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Trinitrophenol, wetted with not less than 30% water	113	1344
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Urea peroxide	140	1511
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Zinc dust	**138**	1436
Zinc fluoride	**151**	9158
Zinc fluorosilicate	**151**	2855

Name of Material	Guide No.	ID No.
Zinc formate	171	9159
Zinc hydrosulfite	171	1931
Zinc hydrosulphite	171	1931
Zinc nitrate	140	1514
Zinc permanganate	140	1515
Zinc peroxide	143	1516
Zinc phenolsulfonate	171	9160
Zinc phenolsulphonate	171	9160
Zinc phosphide	139	1714
Zinc powder	138	1436
Zinc residue	138	1435
Zinc resinate	133	2714
Zinc selenate	151	2630
Zinc selenite	151	2630
Zinc silicofluoride	151	2855
Zinc skimmings	138	1435
Zinc sulfate	171	9161
Zinc sulphate	171	9161
Zirconium, dry, coiled wire, finished metal sheets or strips	170	2858
Zirconium, dry, finished sheets, strips or coiled wire	135	2009
Zirconium hydride	138	1437
Zirconium metal, liquid, suspension	170	1308
Zirconium metal, powder, wet	170	1358
Zirconium nitrate	140	2728
Zirconium picramate, wetted with not less than 20% water	113	1517
Zirconium potassium fluoride	171	9162
Zirconium powder, dry	135	2008
Zirconium powder, wetted with not less than 25% water	170	1358
Zirconium scrap	135	1932
Zirconium sulfate	171	9163
Zirconium sulphate	171	9163
Zirconium suspended in a flammable liquid	170	1308
Zirconium suspended in a liquid (flammable)	170	1308
Zirconium tetrachloride	137	2503

NOTES

GUIDES

GUIDE 111 MIXED LOAD/UNIDENTIFIED CARGO

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May explode from heat, shock, friction or contamination.
- May react violently or explosively on contact with air, water or foam.
- May be ignited by heat, sparks or flames.
- Vapors may travel to source of ignition and flash back.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Inhalation, ingestion or contact with substance may cause severe injury, infection, disease or death.
- High concentration of gas may cause asphyxiation without warning.
- Contact may cause burns to skin and eyes.
- Fire or contact with water may produce irritating, toxic and/or corrosive gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 to 200 meters (330 to 660 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations.

EVACUATION

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: Material may react with extinguishing agent.

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Cool containers with flooding quantities of water until well after fire is out.
- Do not get water inside containers.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spills • Take up with sand or other noncombustible absorbent material and place into containers for later disposal.

Large Spills • Dike far ahead of liquid spill for later disposal.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Shower and wash with soap and water.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

EXPLOSIVES* - DIVISION 1.1, 1.2, 1.3, 1.5 OR 1.6; CLASS A OR B

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- MAY EXPLODE AND THROW FRAGMENTS 1600 meters (1 MILE) OR MORE IF FIRE REACHES CARGO.
- For information on "Compatibility Group" letters, refer to Glossary section.

HEALTH

- Fire may produce irritating, corrosive and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 500 meters (1/3 mile) in all directions.
- Move people out of line of sight of the scene and away from windows.
- Keep unauthorized personnel away.
- Stay upwind.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- **Consider initial evacuation for 800 meters (1/2 mile) in all directions.**

Fire

- If rail car or trailer is involved in a fire and heavily encased explosives such as bombs or artillery projectiles are suspected, ISOLATE for 1600 m (1 mile) in all directions; also, initiate evacuation including emergency responders for 1600 m (1 mile) in all directions.
- When heavily encased explosives are not involved, evacuate the area for 800 meters (1/2 mile) in all directions.

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* For information on "Compatibility Group" letters, refer to the Glossary section.

EMERGENCY RESPONSE

FIRE

CARGO Fires

- **DO NOT fight fire when fire reaches cargo! Cargo may EXPLODE!**
- Stop all traffic and clear the area for at least 1600 meters (1 mile) in all directions and let burn.
- Do not move cargo or vehicle if cargo has been exposed to heat.

TIRE or VEHICLE Fires

- **Use plenty of water - FLOOD it! If water is not available, use CO_2, dry chemical or dirt.**
- If possible, and WITHOUT RISK, use unmanned hose holders or monitor nozzles from maximum distance to prevent fire from spreading to cargo area.
- Pay special attention to tire fires as re-ignition may occur. Stand by with extinguisher ready.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- DO NOT OPERATE RADIO TRANSMITTERS WITHIN 100 meters (330 feet) OF ELECTRIC DETONATORS.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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* For information on "Compatibility Group" letters, refer to the Glossary section.

GUIDE 113

FLAMMABLE SOLIDS - TOXIC (WET/DESENSITIZED EXPLOSIVE)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Flammable/combustible material.
- May be ignited by heat, sparks or flames.
- **DRIED OUT material may explode if exposed to heat, flame, friction or shock; Treat as an explosive (GUIDE 112).**
- **Keep material wet with water or treat as an explosive (Guide 112).**
- Runoff to sewer may create fire or explosion hazard.

HEALTH

- Some are toxic and may be fatal if inhaled, swallowed or absorbed through skin.
- Contact may cause burns to skin and eyes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- **Consider initial evacuation for 500 meters (1/3 mile) in all directions.**

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CARGO Fires

- **DO NOT fight fire when fire reaches cargo! Cargo may EXPLODE!**
- Stop all traffic and clear the area for at least 800 meters (1/2 mile) in all directions and let burn.
- **Do not move cargo or vehicle if cargo has been exposed to heat.**

TIRE or VEHICLE Fires

- **Use plenty of water - FLOOD it! If water is not available, use CO_2, dry chemical or dirt.**
- If possible, and WITHOUT RISK, use unmanned hose holders or monitor nozzles from maximum distance to prevent fire from spreading to cargo area.
- Pay special attention to tire fires as re-ignition may occur. Stand by with extinguisher ready.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.

Small Spills

- Flush area with flooding quantities of water.

Large Spills

- Wet down with water and dike for later disposal.
- KEEP "WETTED" PRODUCT WET BY SLOWLY ADDING FLOODING QUANTITIES OF WATER.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **MAY EXPLODE AND THROW FRAGMENTS 500 meters (1/3 MILE) OR MORE IF FIRE REACHES CARGO.**
- **For information on "Compatibility Group" letters, refer to Glossary section.**

HEALTH

- Fire may produce irritating, corrosive and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 meters (330 feet) in all directions.
- Move people out of line of sight of the scene and away from windows.
- Keep unauthorized personnel away.
- Stay upwind.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- **Consider initial evacuation for 250 meters (800 feet) in all directions.**

Fire

- If rail car or trailer is involved in a fire, ISOLATE for 500 meters (1/3 mile) in all directions; also initiate evacuation including emergency responders for 500 meters (1/3 mile) in all directions.

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* For information on "Compatibility Group" letters, refer to the Glossary section.

EMERGENCY RESPONSE

FIRE

CARGO Fires

- **DO NOT fight fire when fire reaches cargo! Cargo may EXPLODE!**
- Stop all traffic and clear the area for at least 500 meters (1/3 mile) in all directions and let burn.
- **Do not move cargo or vehicle if cargo has been exposed to heat.**

TIRE or VEHICLE Fires

- **Use plenty of water - FLOOD it! If water is not available, use CO_2, dry chemical or dirt.**
- If possible, and WITHOUT RISK, use unmanned hose holders or monitor nozzles from maximum distance to prevent fire from spreading to cargo area.
- Pay special attention to tire fires as re-ignition may occur. Stand by with extinguisher ready.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- DO NOT OPERATE RADIO TRANSMITTERS WITHIN 100 meters (330 feet) OF ELECTRIC DETONATORS.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

SUPPLEMENTAL INFORMATION

- Packages bearing the 1.4S label or packages containing material classified as 1.4S are designed or packaged in such a manner that when involved in a fire, may burn vigorously with localized detonations and projection of fragments.
- Effects are usually confined to immediate vicinity of packages.
- If fire threatens cargo area containing packages bearing the 1.4S label or packages containing material classified as 1.4S, consider isolating at least 15 meters (50 feet) in all directions. Fight fire with normal precautions from a reasonable distance.

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* For information on "Compatibility Group" letters, refer to the Glossary section.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- EXTREMELY FLAMMABLE.
- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Some may be irritating if inhaled at high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 800 meters (1/2 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

GASES - FLAMMABLE (INCLUDING REFRIGERATED LIQUIDS)

EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

Small Fires

- Dry chemical or CO_2.

Large Fires

- Water spray or fog.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Prevent spreading of vapors through sewers, ventilation systems and confined areas.
- Isolate area until gas has dispersed.

CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- EXTREMELY FLAMMABLE.
- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Silane will ignite spontaneously in air.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Some may be toxic if inhaled at high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 800 meters (1/2 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

Small Fires

- Dry chemical or CO_2.

Large Fires

- Water spray or fog.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Stop leak if you can do it without risk.
- Do not touch or walk through spilled material.
- Do not direct water at spill or source of leak.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; Extremely Hazardous.**
- May be fatal if inhaled or absorbed through skin.
- Initial odor may be irritating or foul and may deaden your sense of smell.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION

- These materials are extremely flammable.
- May form explosive mixtures with air.
- May be ignited by heat, sparks or flames.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Runoff may create fire or explosion hazard.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 to 200 meters (330 to 660 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed.
- Consider igniting spill or leak to eliminate toxic gas concerns.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- EXTREMELY FLAMMABLE.
- May be ignited by heat, sparks or flames.
- May form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Some of these materials may react violently with water.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- May cause toxic effects if inhaled.
- Vapors are extremely irritating.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 to 200 meters (330 to 660 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 800 meters (1/2 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

Small Fires

- Dry chemical or CO_2.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- TOXIC; may be fatal if inhaled or absorbed through skin.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION

- Flammable; may be ignited by heat, sparks or flames.
- May form explosive mixtures with air.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Some of these materials may react violently with water.
- Containers may explode when heated.
- Ruptured cylinders may rocket.
- Runoff may create fire or explosion hazard.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 to 200 meters (330 to 660 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

Small Fires

- Dry chemical, CO_2, water spray or alcohol-resistant foam.

Large Fires

- Water spray, fog or alcohol-resistant foam.
- **FOR CHLOROSILANES, DO NOT USE WATER**; use AFFF alcohol-resistant medium expansion foam.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Do not direct water at spill or source of leak.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- **FOR CHLOROSILANES**, use AFFF alcohol-resistant medium expansion foam to reduce vapors.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

GASES - INERT (INCLUDING REFRIGERATED LIQUIDS)

POTENTIAL HAZARDS

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.

FIRE OR EXPLOSION

- **Non-flammable gases.**
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 meters (80 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids or solids.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Use extinguishing agent suitable for type of surrounding fire.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow substance to evaporate.
- Ventilate the area.

CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Contact with liquefied gas may cause frostbite.

FIRE OR EXPLOSION

- **Non-flammable gases.**
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 10 to 25 meters (30 to 80 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Use extinguishing agent suitable for type of surrounding fire.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow substance to evaporate.
- Ventilate the area.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

GUIDE 122

GASES - OXIDIZING (INCLUDING REFRIGERATED LIQUIDS)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Substance does not burn but will support combustion.
- Some may react explosively with fuels.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Runoff may create fire or explosion hazard.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 500 meters (1/3 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Use extinguishing agent suitable for type of surrounding fire.

Small Fires

- Dry chemical or CO_2.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Do not direct water at spill or source of leak.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow substance to evaporate.
- Isolate area until gas has dispersed.

CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled or absorbed through skin.**
- Vapors may be irritating.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION

- Some may burn, but none ignite readily.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 to 200 meters (330 to 660 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical or CO_2.

Large Fires

- Water spray, fog or regular foam.
- Do not get water inside containers.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Isolate area until gas has dispersed.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled or absorbed through skin.**
- Fire will produce irritating, corrosive and/or toxic gases.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION

- Substance does not burn but will support combustion.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- These are strong oxidizers and will react vigorously or explosively with many materials including fuels.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Some will react violently with air, moist air and/or water.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 to 200 meters (330 to 660 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires: Water only; no dry chemical, CO_2 or Halon® .

- Contain fire and let burn. If fire must be fought, water spray or fog is recommended.
- Do not get water inside containers.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch or walk through spilled material.
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed.
- Ventilate the area.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
- Administer oxygen if breathing is difficult.
- Clothing frozen to the skin should be thawed before being removed.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled.**
- Vapors are extremely irritating and corrosive.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION

- Some may burn, but none ignite readily.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Some of these materials may react violently with water.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 to 200 meters (330 to 660 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical or CO_2.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Do not get water inside containers.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Do not direct water at spill or source of leak.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Isolate area until gas has dispersed.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

GASES - COMPRESSED OR LIQUEFIED (INCLUDING REFRIGERANT GASES)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Some may burn, but none ignite readily.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating, corrosive and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 500 meters (1/3 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Use extinguishing agent suitable for type of surrounding fire.

Small Fires

- Dry chemical or CO_2.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- Some of these materials, if spilled, may evaporate leaving a flammable residue.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Do not direct water at spill or source of leak.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow substance to evaporate.
- Ventilate the area.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

GUIDE 127

FLAMMABLE LIQUIDS (POLAR/WATER-MISCIBLE)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Small Fires

- Dry chemical, CO_2, water spray or alcohol-resistant foam.

Large Fires

- Water spray, fog or alcohol-resistant foam.
- Use water spray or fog; do not use straight streams.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.

Large Spills

- Dike far ahead of liquid spill for later disposal.
- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

GUIDE 128 FLAMMABLE LIQUIDS (NON-POLAR/WATER-IMMISCIBLE)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Substance may be transported hot.

HEALTH

- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Water spray, fog or regular foam.
- Use water spray or fog; do not use straight streams.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.

Large Spills

- Dike far ahead of liquid spill for later disposal.
- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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Flammable Liquids (Polar/Water-Miscible/Noxious)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- May cause toxic effects if inhaled or absorbed through skin.
- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Small Fires • Dry chemical, CO_2, water spray or alcohol-resistant foam.

- **Do not use dry chemical extinguishers to control fires involving nitromethane or nitroethane.**

Large Fires

- Water spray, fog or alcohol-resistant foam.
- **Do not use straight streams.**
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.

Large Spills • Dike far ahead of liquid spill for later disposal.

- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

FLAMMABLE LIQUIDS (NON-POLAR/WATER-IMMISCIBLE/NOXIOUS)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- May cause toxic effects if inhaled or absorbed through skin.
- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

FLAMMABLE LIQUIDS (NON-POLAR/WATER-IMMISCIBLE/NOXIOUS)

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EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Water spray, fog or regular foam.
- **Do not use straight streams.**
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.

Large Spills • Dike far ahead of liquid spill for later disposal.

- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled, ingested or absorbed through skin.**
- Inhalation or contact with some of these materials will irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion and poison hazard indoors, outdoors or in sewers.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 to 200 meters (330 to 660 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Small Fires • Dry chemical, CO_2, water spray or alcohol-resistant foam.

Large Fires

- Water spray, fog or alcohol-resistant foam.
- Move containers from fire area if you can do it without risk.
- Dike fire control water for later disposal; do not scatter the material.
- Use water spray or fog; do not use straight streams.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.

Small Spills • Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

- Use clean non-sparking tools to collect absorbed material.

Large Spills • Dike far ahead of liquid spill for later disposal.

- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **Flammable/combustible materials.**
- May be ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- May cause toxic effects if inhaled or ingested/swallowed.
- Contact with substance may cause severe burns to skin and eyes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Large Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **Some of these materials may react violently with water.**

Small Fires • Dry chemical, CO_2, water spray or alcohol-resistant foam.

Large Fires

- Water spray, fog or alcohol-resistant foam.
- Move containers from fire area if you can do it without risk.
- Dike fire control water for later disposal; do not scatter the material.
- Do not get water inside containers.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb with earth, sand or other non-combustible material and transfer to containers (except for Hydrazine).
- Use clean non-sparking tools to collect absorbed material.

Large Spills • Dike far ahead of liquid spill for later disposal.

- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Flammable/combustible material.
- May be ignited by friction, heat, sparks or flames.
- Some may burn rapidly with flare burning effect.
- Powders, dusts, shavings, borings, turnings or cuttings may explode or burn with explosive violence.
- Substance may be transported in a molten form.
- May re-ignite after fire is extinguished.

HEALTH

- Fire may produce irritating and/or toxic gases.
- Contact may cause burns to skin and eyes.
- Contact with molten substance may cause severe burns to skin and eyes.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 10 to 25 meters (30 to 80 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO_2, sand, earth, water spray or regular foam.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Cool containers with flooding quantities of water until well after fire is out.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.

Small Dry Spills

- With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

Large Spills

- Wet down with water and dike for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Removal of solidified molten material from skin requires medical assistance.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Flammable/combustible material.
- May be ignited by heat, sparks or flames.
- When heated, vapors may form explosive mixtures with air: indoors, outdoors, and sewers explosion hazards.
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated.

HEALTH

- TOXIC; inhalation, ingestion, or skin contact with material may cause severe injury or death.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Stay upwind.
- Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO_2, water spray or alcohol-resistant foam.

Large Fires

- Water spray, fog or alcohol-resistant foam.
- Move containers from fire area if you can do it without risk.
- Use water spray or fog; do not use straight streams.
- Do not get water inside containers.
- Dike fire control water for later disposal; do not scatter the material.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Stop leak if you can do it without risk.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Prevent entry into waterways, sewers, basements or confined areas.
- Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Flammable/combustible material.
- May ignite on contact with moist air or moisture.
- May burn rapidly with flare-burning effect.
- Some react vigorously or explosively on contact with water.
- Some may decompose explosively when heated or involved in a fire.
- May re-ignite after fire is extinguished.
- Runoff may create fire or explosion hazard.

HEALTH

- Fire will produce irritating, corrosive and/or toxic gases.
- Inhalation of decomposition products may cause severe injury or death.
- Contact with substance may cause severe burns to skin and eyes.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 to 150 meters (330 to 490 feet) in all directions.
- Stay upwind.
- Keep unauthorized personnel away.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT USE WATER, CO_2 OR FOAM ON MATERIAL ITSELF.**
- Some of these materials may react violently with water.

EXCEPTION: For Dithionite (Hydrosulfite/Hydrosulphite) UN1384, UN1923 and UN1929, USE FLOODING AMOUNTS OF WATER for SMALL AND LARGE fires to stop the reaction. Smothering will not work for these materials. They do not need air to burn.

Small Fires

- Dry chemical, soda ash, lime or DRY sand, **EXCEPT for UN1384, UN1923 and UN1929.**

Large Fires

- DRY sand, dry chemical, soda ash or lime, **EXCEPT for UN1384, UN1923 and UN1929**, or withdraw from area and let fire burn.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers or in contact with substance.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leak with no fire.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.

Small Spills

EXCEPTION: For Dithionite (Hydrosulfite/Hydrosulphite) spills, UN1384, UN1923 and UN1929, dissolve with 5 parts water and collect for proper disposal.

- Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
- Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

GUIDE 136 SUBSTANCES - SPONTANEOUSLY COMBUSTIBLE - TOXIC (AIR-REACTIVE)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Extremely flammable; will ignite itself if exposed to air.
- Burns rapidly, releasing dense, white, irritating fumes.
- Substance may be transported in a molten form.
- May re-ignite after fire is extinguished.

HEALTH

- Fire will produce irritating, corrosive and/or toxic gases.
- TOXIC; ingestion of substance or inhalation of decomposition products will cause severe injury or death.
- Contact with substance may cause severe burns to skin and eyes.
- Some effects may be experienced due to skin absorption.
- Runoff from fire control may be corrosive and/or toxic and cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 to 150 meters (330 to 490 feet) in all directions.
- Stay upwind.
- Keep unauthorized personnel away.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Water spray, wet sand or wet earth.

Large Fires

- Water spray or fog.
- **Do not scatter spilled material with high pressure water streams.**
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.

Small Spills

- Cover with water, sand or earth. Shovel into metal container and keep material under water.

Large Spills

- Dike for later disposal and cover with wet sand or earth.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- In case of contact with substance, keep exposed skin areas immersed in water or covered with wet bandages until medical attention is received.
- Removal of solidified molten material from skin requires medical assistance.
- Remove and isolate contaminated clothing and shoes at the site and place in metal container filled with water. Fire hazard if allowed to dry.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- TOXIC; inhalation, ingestion or contact (skin, eyes) with vapors, dusts or substance may cause severe injury, burns, or death.
- Fire will produce irritating, corrosive and/or toxic gases.
- Reaction with water may generate much heat which will increase the concentration of fumes in the air.
- Contact with molten substance may cause severe burns to skin and eyes.
- Runoff from fire control or dilution water may cause pollution.

FIRE OR EXPLOSION

- Some of these materials may burn, but none ignite readily.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Substance will react with water (some violently), releasing corrosive and/or toxic gases.
- Flammable/toxic gases may accumulate in confined areas (basement, tanks, hopper/tank cars etc.)
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated or if contaminated with water.
- Substance may be transported in a molten form.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **When material is not involved in fire: do not use water on material itself.**

Small Fires

- Dry chemical or CO_2.
- Move containers from fire area if you can do it without risk.

Large Fires

- Flood fire area with large quantities of water, while knocking down vapors with water fog. If insufficient water supply: knock down vapors only.

Fire involving Tanks or Car/Trailer Loads

- Cool containers with flooding quantities of water until well after fire is out.
- Do not get water inside containers.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container.
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Small Spills • Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

- Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Removal of solidified molten material from skin requires medical assistance.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Produce flammable gases on contact with water.
- May ignite on contact with water or moist air.
- Some react vigorously or explosively on contact with water.
- May be ignited by heat, sparks or flames.
- May re-ignite after fire is extinguished.
- Some are transported in highly flammable liquids.
- Runoff may create fire or explosion hazard.

HEALTH

- Inhalation or contact with vapors, substance, or decomposition products may cause severe injury or death.
- May produce corrosive solutions on contact with water.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate the area before entry.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 250 meters (800 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

SUBSTANCES - WATER-REACTIVE (EMITTING FLAMMABLE GASES)

GUIDE 138

EMERGENCY RESPONSE

FIRE

- **DO NOT USE WATER OR FOAM.**

Small Fires

- Dry chemical, soda ash, lime or sand.

Large Fires

- DRY sand, dry chemical, soda ash or lime or withdraw from area and let fire burn.
- Move containers from fire area if you can do it without risk.

Magnesium Fires

- DRY sand, sodium chloride powder, graphite powder or Met-L-X® powder.

Lithium Fires

- DRY sand, sodium chloride powder, graphite powder, copper powder or Lith-X® powder.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- **DO NOT GET WATER on spilled substance or inside containers.**

Small Spills • Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

- Dike for later disposal; do not apply water unless directed to do so.

Powder Spills • Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.

- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, wipe from skin immediately; flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

GUIDE 139 SUBSTANCES - WATER-REACTIVE (EMITTING FLAMMABLE AND TOXIC GASES)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Produce flammable and toxic gases on contact with water.
- May ignite on contact with water or moist air.
- Some react vigorously or explosively on contact with water.
- May be ignited by heat, sparks or flames.
- May re-ignite after fire is extinguished.
- Some are transported in highly flammable liquids.
- Runoff may create fire or explosion hazard.

HEALTH

- Highly toxic: contact with water produces toxic gas, may be fatal if inhaled.
- Inhalation or contact with vapors, substance, or decomposition products may cause severe injury or death.
- May produce corrosive solutions on contact with water.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 to 150 meters (330 to 490 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate the area before entry.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Large Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT USE WATER OR FOAM. (FOAM MAY BE USED FOR CHLOROSILANES, SEE BELOW)**

Small Fires

- Dry chemical, soda ash, lime or sand.

Large Fires

- DRY sand, dry chemical, soda ash or lime or withdraw from area and let fire burn.
- **FOR CHLOROSILANES, DO NOT USE WATER; use AFFF alcohol-resistant medium expansion foam; DO NOT USE dry chemicals, soda ash or lime on chlorosilane fires (large or small) as they may release large quantities of hydrogen gas which may explode.**
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not get water inside containers.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- **DO NOT GET WATER on spilled substance or inside containers.**
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- **FOR CHLOROSILANES, use AFFF alcohol-resistant medium expansion foam to reduce vapors.**

Small Spills • Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

- Dike for later disposal; do not apply water unless directed to do so.

Powder Spills • Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.

- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult. • Remove and isolate contaminated clothing and shoes. • In case of contact with substance, wipe from skin immediately; flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet. • Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- These substances will accelerate burning when involved in a fire.
- Some may decompose explosively when heated or involved in a fire.
- May explode from heat or contamination.
- Some will react explosively with hydrocarbons (fuels).
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- Inhalation, ingestion or contact (skin, eyes) with vapors or substance may cause severe injury, burns, or death.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 10 to 25 meters (30 to 80 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Use water. Do not use dry chemicals or foams. CO_2 or Halon® may provide limited control.

Large Fires

- Flood fire area with water from a distance.
- Move containers from fire area if you can do it without risk.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Do not get water inside containers.

Small Dry Spills

- With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

Small Liquid Spills

- Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Large Spills

- Dike far ahead of liquid spill for later disposal.
- **Following product recovery, flush area with water.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- These substances will accelerate burning when involved in a fire.
- May explode from heat or contamination.
- Some may burn rapidly.
- Some will react explosively with hydrocarbons (fuels).
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- Toxic by ingestion.
- Inhalation of dust is toxic.
- Fire may produce irritating, corrosive and/or toxic gases.
- Contact with substance may cause severe burns to skin and eyes.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 10 to 25 meters (30 to 80 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Use water. Do not use dry chemicals or foams. CO_2 or Halon® may provide limited control.

Large Fires

- Flood fire area with water from a distance.
- Move containers from fire area if you can do it without risk.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.

Small Dry Spills

- With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

Large Spills

- Dike far ahead of spill for later disposal.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- These substances will accelerate burning when involved in a fire.
- May explode from heat or contamination.
- Some will react explosively with hydrocarbons (fuels).
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- TOXIC; inhalation, ingestion or contact (skin, eyes) with vapors or substance may cause severe injury, burns or death.
- Fire may produce irritating, corrosive and/or toxic gases.
- Toxic/flammable fumes may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.).
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Use water. Do not use dry chemicals or foams. CO_2 or Halon® may provide limited control.

Large Fires

- Flood fire area with water from a distance.
- Move containers from fire area if you can do it without risk.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift.
- Do not get water inside containers.

Small Liquid Spills

- Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Large Spills

- Dike far ahead of liquid spill for later disposal.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May explode from friction, heat or contamination.
- These substances will accelerate burning when involved in a fire.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Some will react explosively with hydrocarbons (fuels).
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- TOXIC; inhalation, ingestion or contact (skin, eyes) with vapors, dusts or substance may cause severe injury, burns, or death.
- Fire may produce irritating and/or toxic gases.
- Toxic fumes or dust may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.).
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Use water. Do not use dry chemicals or foams. CO_2 or Halon® may provide limited control.

Large Fires

- Flood fire area with water from a distance.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Move containers from fire area if you can do it without risk.
- Do not get water inside containers: a violent reaction may occur.
- Cool containers with flooding quantities of water until well after fire is out.
- Dike fire-control water for later disposal.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Use water spray to reduce vapors or divert vapor cloud drift.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spills

- Flush area with flooding quantities of water.

Large Spills

- DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May ignite combustibles (wood, paper, oil, clothing, etc.).
- React vigorously and/or explosively with water.
- Produce toxic and/or corrosive substances on contact with water.
- Flammable/toxic gases may accumulate in tanks and hopper cars.
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- TOXIC; inhalation or contact with vapor, substance, or decomposition products may cause severe injury or death.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT USE WATER OR FOAM.**

Small Fires

- Dry chemical, soda ash or lime.

Large Fires

- DRY sand, dry chemical, soda ash or lime or withdraw from area and let fire burn.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- **DO NOT GET WATER on spilled substance or inside containers.**

Small Spills

- Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

Large Spills

- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

GUIDE 145

ORGANIC PEROXIDES (HEAT AND CONTAMINATION SENSITIVE)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May explode from heat or contamination.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- May be ignited by heat, sparks or flames.
- May burn rapidly with flare-burning effect.
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- Fire may produce irritating, corrosive and/or toxic gases.
- Ingestion or contact (skin, eyes) with substance may cause severe injury or burns.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial evacuation for at least 250 meters (800 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Water spray or fog is preferred; if water not available use dry chemical, CO_2 or regular foam.

Large Fires

- Flood fire area with water from a distance.
- Use water spray or fog; do not use straight streams.
- Move containers from fire area if you can do it without risk.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Keep substance wet using water spray.
- Stop leak if you can do it without risk.

Small Spills

- Take up with inert, damp, noncombustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal.

Large Spills

- Wet down with water and dike for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Remove material from skin immediately.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

GUIDE 146 ORGANIC PEROXIDES (HEAT, CONTAMINATION AND FRICTION SENSITIVE)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May explode from heat, shock, friction or contamination.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- May be ignited by heat, sparks or flames.
- May burn rapidly with flare-burning effect.
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- Fire may produce irritating, corrosive and/or toxic gases.
- Ingestion or contact (skin, eyes) with substance may cause severe injury or burns.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial evacuation for at least 250 meters (800 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

ORGANIC PEROXIDES (HEAT, CONTAMINATION AND FRICTION SENSITIVE)

EMERGENCY RESPONSE

FIRE

Small Fires

- Water spray or fog is preferred; if water not available use dry chemical, CO_2 or regular foam.

Large Fires

- Flood fire area with water from a distance.
- Use water spray or fog; do not use straight streams.
- Move containers from fire area if you can do it without risk.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Keep substance wet using water spray.
- Stop leak if you can do it without risk.

Small Spills

- Take up with inert, damp, noncombustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal.

Large Spills

- Wet down with water and dike for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Remove material from skin immediately.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

GUIDE 147 ORGANIC PEROXIDES (HEAT AND CONTAMINATION SENSITIVE/SEVERE IRRITANTS)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May explode from heat or contamination.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- May be ignited by heat, sparks or flames.
- May burn rapidly with flare-burning effect.
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- TOXIC; inhalation, ingestion or contact (skin, eyes) with vapors, dusts or substance may cause severe injury, burns, or death.
- Contact of vapor or substance with eyes may cause blindness within minutes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Toxic fumes or dust may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.).
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Large Spill

- Consider initial evacuation for at least 250 meters (800 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Water spray or fog is preferred; if water not available use dry chemical, CO_2 or regular foam.

Large Fires

- Flood fire area with water from a distance.
- Use water spray or fog; do not use straight streams.
- Move containers from fire area if you can do it without risk.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Keep substance wet using water spray.
- Stop leak if you can do it without risk.

Small Spills

- Take up with inert, damp, noncombustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal.

Large Spills

- Wet down with water and dike for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Remove material from skin immediately.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May explode from heat, contamination or loss of temperature control.
- These materials are particularly sensitive to temperature rises. Above a given "Control Temperature" they decompose violently and catch fire.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- May ignite spontaneously if exposed to air.
- May be ignited by heat, sparks or flames.
- May burn rapidly with flare-burning effect.
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- Fire may produce irritating, corrosive and/or toxic gases.
- Ingestion or contact (skin, eyes) with substance may cause severe injury or burns.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- **DO NOT allow the substance to warm up. Obtain liquid nitrogen, dry ice or ice for cooling. If none can be obtained, evacuate the area immediately.**

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial evacuation for at least 250 meters (800 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **The temperature of the substance must be maintained at or below the "Control Temperature" at all times.**

Small Fires

- Water spray or fog is preferred; if water not available use dry chemical, CO_2 or regular foam.

Large Fires

- Flood fire area with water from a distance.
- Use water spray or fog; do not use straight streams.
- Move containers from fire area if you can do it without risk.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- **BEWARE OF POSSIBLE CONTAINER EXPLOSION.**
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.

Small Spills

- Take up with inert, damp, noncombustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal.

Large Spills

- Dike far ahead of liquid spill for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Remove material from skin immediately.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **Self-decomposition or self-ignition may be triggered by heat, chemical reaction, friction or impact.**
- May be ignited by heat, sparks or flames.
- Some may decompose explosively when heated or involved in a fire.
- May burn violently. Decomposition may be self-accelerating and produce large amounts of gases.
- Vapors or dust may form explosive mixtures with air.

HEALTH

- Inhalation or contact with vapors, substance, or decomposition products may cause severe injury or death.
- May produce irritating, toxic and/or corrosive gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 250 meters (800 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Flood fire area with water from a distance.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- **BEWARE OF POSSIBLE CONTAINER EXPLOSION.**
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.

Small Spills

- Take up with inert, damp, noncombustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **Self-decomposition or self-ignition may be triggered by heat, chemical reaction, friction or impact.**
- Self-accelerating decomposition may occur if the specific control temperature is not maintained.
- These materials are particularly sensitive to temperature rises. Above a given "Control Temperature" they decompose violently and catch fire.
- May be ignited by heat, sparks or flames.
- Some may decompose explosively when heated or involved in a fire.
- May burn violently. Decomposition may be self-accelerating and produce large amounts of gases.
- Vapors or dust may form explosive mixtures with air.

HEALTH

- Inhalation or contact with vapors, substance, or decomposition products may cause severe injury or death.
- May produce irritating, toxic and/or corrosive gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- **DO NOT allow the substance to warm up. Obtain liquid nitrogen, dry ice or ice for cooling. If none can be obtained, evacuate the area immediately.**

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 250 meters (800 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **The temperature of the substance must be maintained at or below the "Control Temperature" at all times.**

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Flood fire area with water from a distance.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- **BEWARE OF POSSIBLE CONTAINER EXPLOSION.**
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.

Small Spills

- Take up with inert, damp, noncombustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **Highly toxic**, may be fatal if inhaled, swallowed or absorbed through skin.
- Avoid any skin contact.
- Effects of contact or inhalation may be delayed.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

FIRE OR EXPLOSION

- Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
- Containers may explode when heated.
- Runoff may pollute waterways.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO_2 or water spray.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Dike fire control water for later disposal; do not scatter the material.
- Use water spray or fog; do not use straight streams.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Cover with plastic sheet to prevent spreading.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- DO NOT GET WATER INSIDE CONTAINERS.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **Highly toxic,** may be fatal if inhaled, swallowed or absorbed through skin.
- Contact with molten substance may cause severe burns to skin and eyes.
- Avoid any skin contact.
- Effects of contact or inhalation may be delayed.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

FIRE OR EXPLOSION

- Combustible material: may burn but does not ignite readily.
- Containers may explode when heated.
- Runoff may pollute waterways.
- Substance may be transported in a molten form.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO_2 or water spray.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Dike fire control water for later disposal; do not scatter the material.
- Use water spray or fog; do not use straight streams.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Cover with plastic sheet to prevent spreading.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- DO NOT GET WATER INSIDE CONTAINERS.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

GUIDE 153 SUBSTANCES - TOXIC AND/OR CORROSIVE (COMBUSTIBLE)

POTENTIAL HAZARDS

HEALTH

- TOXIC; inhalation, ingestion, or skin contact with material may cause severe injury or death.
- Contact with molten substance may cause severe burns to skin and eyes.
- Avoid any skin contact.
- Effects of contact or inhalation may be delayed.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

FIRE OR EXPLOSION

- Combustible material: may burn but does not ignite readily.
- When heated, vapors may form explosive mixtures with air: indoors, outdoors, and sewers explosion hazards.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated.
- Runoff may pollute waterways.
- Substance may be transported in a molten form.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO_2 or water spray.

Large Fires

- Dry chemical, CO_2, alcohol-resistant foam or water spray.
- Move containers from fire area if you can do it without risk.
- Dike fire control water for later disposal; do not scatter the material.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- DO NOT GET WATER INSIDE CONTAINERS.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC**; inhalation, ingestion, or skin contact with material may cause severe injury or death.
- Contact with molten substance may cause severe burns to skin and eyes.
- Avoid any skin contact.
- Effects of contact or inhalation may be delayed.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

FIRE OR EXPLOSION

- Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
- Some are oxidizers and may ignite combustibles (wood, paper, oil, clothing, etc.).
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

SUBSTANCES - TOXIC AND/OR CORROSIVE (NON-COMBUSTIBLE)

GUIDE 154

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO_2 or water spray.

Large Fires

- Dry chemical, CO_2, alcohol-resistant foam or water spray.
- Move containers from fire area if you can do it without risk.
- Dike fire control water for later disposal; do not scatter the material.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- DO NOT GET WATER INSIDE CONTAINERS.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

GUIDE 155

SUBSTANCES - TOXIC AND/OR CORROSIVE (FLAMMABLE/WATER-SENSITIVE)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors form explosive mixtures with air: indoors, outdoors, and sewers explosion hazards.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapors may travel to source of ignition and flash back.
- Substance will react with water (some violently) releasing flammable, toxic or corrosive gases and runoff.
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated or if contaminated with water.

HEALTH

- TOXIC; inhalation, ingestion or contact (skin, eyes) with vapors, dusts or substance may cause severe injury, burns, or death.
- **Bromoacetates and chloroacetates are extremely irritating/lachrymators.**
- Reaction with water or moist air will release toxic, corrosive or flammable gases.
- Reaction with water may generate much heat which will increase the concentration of fumes in the air.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Note: Most foams will react with the material and release corrosive/toxic gases.

Small Fires • CO_2, dry chemical, dry sand, alcohol-resistant foam.

Large Fires

- Water spray, fog or alcohol-resistant foam.
- **FOR CHLOROSILANES, DO NOT USE WATER**; use AFFF alcohol-resistant medium expansion foam.
- Move containers from fire area if you can do it without risk.
- Use water spray or fog; do not use straight streams.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- A vapor suppressing foam may be used to reduce vapors.
- **FOR CHLOROSILANES**, use AFFF alcohol-resistant medium expansion foam to reduce vapors.
- **DO NOT GET WATER on spilled substance or inside containers.**
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spills • Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

- Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Combustible material: may burn but does not ignite readily.
- Substance will react with water (some violently) releasing flammable, toxic or corrosive gases and runoff.
- When heated, vapors may form explosive mixtures with air: indoors, outdoors, and sewers explosion hazards.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapors may travel to source of ignition and flash back.
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated or if contaminated with water.

HEALTH

- TOXIC; inhalation, ingestion or contact (skin, eyes) with vapors, dusts or substance may cause severe injury, burns, or death.
- Reaction with water or moist air will release toxic, corrosive or flammable gases.
- Reaction with water may generate much heat which will increase the concentration of fumes in the air.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Note: Most foams will react with the material and release corrosive/toxic gases.

Small Fires • CO_2, dry chemical, dry sand, alcohol-resistant foam.

Large Fires

- Water spray, fog or alcohol-resistant foam.
- **FOR CHLOROSILANES, DO NOT USE WATER**; use AFFF alcohol-resistant medium expansion foam.
- Move containers from fire area if you can do it without risk.
- Use water spray or fog; do not use straight streams.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- A vapor suppressing foam may be used to reduce vapors.
- **FOR CHLOROSILANES**, use AFFF alcohol-resistant medium expansion foam to reduce vapors.
- **DO NOT GET WATER on spilled substance or inside containers.**
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spills • Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

- Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

GUIDE 157 SUBSTANCES - TOXIC AND/OR CORROSIVE (NON-COMBUSTIBLE/WATER-SENSITIVE)

POTENTIAL HAZARDS

HEALTH

- TOXIC; inhalation, ingestion or contact (skin, eyes) with vapors, dusts or substance may cause severe injury, burns, or death.
- Reaction with water or moist air will release toxic, corrosive or flammable gases.
- Reaction with water may generate much heat which will increase the concentration of fumes in the air.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

FIRE OR EXPLOSION

- Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
- Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars etc.).
- Substance will react with water (some violently), releasing corrosive and/or toxic gases.
- Reaction with water may generate much heat which will increase the concentration of fumes in the air.
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated or if contaminated with water.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Note: Most foams will react with the material and release corrosive/toxic gases.

Small Fires • CO_2 (except for Cyanides), dry chemical, dry sand, alcohol-resistant foam.

Large Fires

- Water spray, fog or alcohol-resistant foam.
- Move containers from fire area if you can do it without risk.
- Use water spray or fog; do not use straight streams.
- Dike fire control water for later disposal; do not scatter the material.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- A vapor suppressing foam may be used to reduce vapors.
- DO NOT GET WATER INSIDE CONTAINERS.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spills • Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

- Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- Inhalation or contact with substance may cause infection, disease, or death.
- Runoff from fire control may cause pollution.
- **Note: Damaged packages containing solid CO_2 as a refrigerant may produce water or frost from condensation of air. Do not touch this liquid as it could be contaminated by the contents of the parcel.**

FIRE OR EXPLOSION

- Some of these materials may burn, but none ignite readily.
- Some may be transported in flammable liquids.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 10 to 25 meters (30 to 80 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Obtain identity of substance involved.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, soda ash, lime or sand.

Large Fires

- Use extinguishing agent suitable for type of surrounding fire.
- Move containers from fire area if you can do it without risk.
- Do not scatter spilled material with high pressure water streams.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Absorb with earth, sand or other non-combustible material.
- Cover damaged package or spilled material with damp towel or rag and keep wet with liquid bleach or other disinfectant.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to a safe isolated area.

CAUTION: Victim may be a source of contamination.

- Call 911 or emergency medical service.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- **For further assistance, contact your local Poison Control Center.**
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- Inhalation of vapors or dust is extremely irritating.
- May cause burning of eyes and flow of tears.
- May cause coughing, difficult breathing and nausea.
- Brief exposure effects last only a few minutes.
- Exposure in an enclosed area may be very harmful.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause pollution.

FIRE OR EXPLOSION

- Some of these materials may burn, but none ignite readily.
- Containers may explode when heated.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Dike fire control water for later disposal; do not scatter the material.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.

Small Spills

- Take up with sand or other noncombustible absorbent material and place into containers for later disposal.

Large Spills

- Dike far ahead of liquid spill for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects should disappear after individual has been exposed to fresh air for approximately 10 minutes.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- Vapors may cause dizziness or suffocation.
- Exposure in an enclosed area may be very harmful.
- Contact may irritate or burn skin and eyes.
- Fire may produce irritating and/or toxic gases.
- Runoff from fire control or dilution water may cause pollution.

FIRE OR EXPLOSION

- Some of these materials may burn, but none ignite readily.
- Most vapors are heavier than air.
- Air/vapor mixtures may explode when ignited.
- Container may explode in heat of fire.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO_2 or water spray.

Large Fires

- Dry chemical, CO_2, alcohol-resistant foam or water spray.
- Move containers from fire area if you can do it without risk.
- Dike fire control water for later disposal; do not scatter the material.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Stop leak if you can do it without risk.

Small Liquid Spills

- Take up with sand, earth or other noncombustible absorbent material.

Large Spills

- Dike far ahead of liquid spill for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

GUIDE 161

RADIOACTIVE MATERIALS (LOW LEVEL RADIATION)

POTENTIAL HAZARDS

HEALTH

- Radiation presents minimal risk to transport workers, emergency response personnel, and the public during transportation accidents. Packaging durability increases as potential hazard of radioactive content increases.
- Very low levels of contained radioactive materials and low radiation levels outside packages result in low risks to people. Damaged packages may release measurable amounts of radioactive material, but the resulting risks are expected to be low.
- Some radioactive materials cannot be detected by commonly available instruments.
- Packages do not have RADIOACTIVE I, II, or III labels. Some may have EMPTY labels or may have the word "Radioactive" in the package marking.

FIRE OR EXPLOSION

- Some of these materials may burn, but most do not ignite readily.
- Many have cardboard outer packaging; content (physically large or small) can be of many different physical forms.
- Radioactivity does not change flammability or other properties of materials.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- **Priorities for rescue, life-saving, first aid, and control of fire and other hazards are higher than the priority for measuring radiation levels.**
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Stay upwind.
- Keep unauthorized personnel away.
- Detain or isolate uninjured persons or equipment suspected to be contaminated; delay decontamination and cleanup until instructions are received from Radiation Authority.

PROTECTIVE CLOTHING

- Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide adequate protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

EMERGENCY RESPONSE

FIRE

- Presence of radioactive material will not influence the fire control processes and should not influence selection of techniques.
- Move containers from fire area if you can do it without risk.
- Do not move damaged packages; move undamaged packages out of fire zone.

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Water spray, fog (flooding amounts).

SPILL OR LEAK

- Do not touch damaged packages or spilled material.
- Cover liquid spill with sand, earth or other noncombustible absorbent material.
- Cover powder spill with plastic sheet or tarp to minimize spreading.

FIRST AID

- Medical problems take priority over radiological concerns.
- Use first aid treatment according to the nature of the injury.
- Do not delay care and transport of a seriously injured person.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Injured persons contaminated by contact with released material are not a serious hazard to health care personnel, equipment or facilities.
- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

GUIDE 162

RADIOACTIVE MATERIALS (LOW TO MODERATE LEVEL RADIATION)

POTENTIAL HAZARDS

HEALTH

- Radiation presents minimal risk to transport workers, emergency response personnel, and the public during transportation accidents. Packaging durability increases as potential hazard of radioactive content increases.
- Undamaged packages are safe. Contents of damaged packages may cause higher external radiation exposure, or both external and internal radiation exposure if contents are released.
- Low radiation hazard when material is inside container. If material is released from package or bulk container, hazard will vary from low to moderate. Level of hazard will depend on the type and amount of radioactivity, the kind of material it is in, and/or the surfaces it is on.
- Some material may be released from packages during accidents of moderate severity but risks to people are not great.
- Released radioactive materials or contaminated objects usually will be visible if packaging fails.
- Some exclusive use shipments of bulk and packaged materials will not have "RADIOACTIVE" labels. • Placards, markings, and shipping papers provide identification.
- Some packages may have a "RADIOACTIVE" label and a second hazard label. The second hazard is usually greater than the radiation hazard; so follow this Guide as well as the response Guide for the second hazard class label.
- Some radioactive materials cannot be detected by commonly available instruments.
- Runoff from control of cargo fire may cause low-level pollution.

FIRE OR EXPLOSION

- Some of these materials may burn, but most do not ignite readily.
- Uranium and Thorium metal cuttings may ignite spontaneously if exposed to air (see Guide 136).
- Nitrates are oxidizers and may ignite other combustibles (see Guide 141).

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- **Priorities for rescue, life-saving, first aid, and control of fire and other hazards are higher than the priority for measuring radiation levels.**
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions. • Stay upwind. • Keep unauthorized personnel away.
- Detain or isolate uninjured persons or equipment suspected to be contaminated; delay decontamination and cleanup until instructions are received from Radiation Authority.

PROTECTIVE CLOTHING

- Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide adequate protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

EMERGENCY RESPONSE

FIRE

- Presence of radioactive material will not influence the fire control processes and should not influence selection of techniques.
- Move containers from fire area if you can do it without risk.
- Do not move damaged packages; move undamaged packages out of fire zone.

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Water spray, fog (flooding amounts).
- Dike fire-control water for later disposal.

SPILL OR LEAK

- Do not touch damaged packages or spilled material.
- Cover liquid spill with sand, earth or other noncombustible absorbent material.
- Dike to collect large liquid spills.
- Cover powder spill with plastic sheet or tarp to minimize spreading.

FIRST AID

- Medical problems take priority over radiological concerns.
- Use first aid treatment according to the nature of the injury.
- Do not delay care and transport of a seriously injured person.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- In case of contact with substance, wipe from skin immediately; flush skin or eyes with running water for at least 20 minutes.
- Injured persons contaminated by contact with released material are not a serious hazard to health care personnel, equipment or facilities.
- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

GUIDE 163 RADIOACTIVE MATERIALS (LOW TO HIGH LEVEL RADIATION)

POTENTIAL HAZARDS

HEALTH

- Radiation presents minimal risk to transport workers, emergency response personnel, and the public during transportation accidents. Packaging durability increases as potential hazard of radioactive content increases.
- Undamaged packages are safe. Contents of damaged packages may cause higher external radiation exposure, or both external and internal radiation exposure if contents are released.
- Type A packages (cartons, boxes, drums, articles, etc.) identified as "Type A" by marking on packages or by shipping papers contain non-life endangering amounts. Partial releases might be expected if "Type A" packages are damaged in moderately severe accidents.
- Type B packages, and the rarely occurring Type C packages, (large and small, usually metal) contain the most hazardous amounts. They can be identified by package markings or by shipping papers. Life threatening conditions may exist only if contents are released or package shielding fails. Because of design, evaluation, and testing of packages, these conditions would be expected only for accidents of utmost severity.
- The rarely occurring "Special Arrangement" shipments may be of Type A, Type B or Type C packages. Package type will be marked on packages, and shipment details will be on shipping papers.
- Radioactive White-I labels indicate radiation levels outside single, isolated, undamaged packages are very low (less than 0.005 mSv/h (0.5 mrem/h)).
- Radioactive Yellow-II and Yellow-III labeled packages have higher radiation levels. The transport index (TI) on the label identifies the maximum radiation level in mrem/h one meter from a single, isolated, undamaged package.
- Some radioactive materials cannot be detected by commonly available instruments.
- Water from cargo fire control may cause pollution.

FIRE OR EXPLOSION

- Some of these materials may burn, but most do not ignite readily.
- Radioactivity does not change flammability or other properties of materials.
- Type B packages are designed and evaluated to withstand total engulfment in flames at temperatures of 800°C (1475°F) for a period of 30 minutes.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- **Priorities for rescue, life-saving, first aid, and control of fire and other hazards are higher than the priority for measuring radiation levels.**
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
  - Stay upwind.
  - Keep unauthorized personnel away.
- Detain or isolate uninjured persons or equipment suspected to be contaminated; delay decontamination and cleanup until instructions are received from Radiation Authority.

PROTECTIVE CLOTHING

- Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide adequate protection against internal radiation exposure, but not external radiation exposure.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

EMERGENCY RESPONSE

FIRE

- Presence of radioactive material will not influence the fire control processes and should not influence selection of techniques.
- Move containers from fire area if you can do it without risk.
- Do not move damaged packages; move undamaged packages out of fire zone.

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Water spray, fog (flooding amounts).
- Dike fire-control water for later disposal.

SPILL OR LEAK

- Do not touch damaged packages or spilled material.
- Damp surfaces on undamaged or slightly damaged packages are seldom an indication of packaging failure. Most packaging for liquid content have inner containers and/or inner absorbent materials.
- Cover liquid spill with sand, earth or other noncombustible absorbent material.

FIRST AID

- Medical problems take priority over radiological concerns.
- Use first aid treatment according to the nature of the injury.
- Do not delay care and transport of a seriously injured person.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Injured persons contaminated by contact with released material are not a serious hazard to health care personnel, equipment or facilities.
- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

GUIDE 164 Radioactive Materials (Special Form / Low to High Level External Radiation)

POTENTIAL HAZARDS

HEALTH

- Radiation presents minimal risk to transport workers, emergency response personnel, and the public during transportation accidents. Packaging durability increases as potential hazard of radioactive content increases.
- Undamaged packages are safe; contents of damaged packages may cause external radiation exposure, and much higher external exposure if contents (source capsules) are released.
- Contamination and internal radiation hazards are not expected, but not impossible.
- Type A packages (cartons, boxes, drums, articles, etc.) identified as "Type A" by marking on packages or by shipping papers contain non-life endangering amounts. Radioactive sources may be released if "Type A" packages are damaged in moderately severe accidents.
- Type B packages, and the rarely occurring Type C packages, (large and small, usually metal) contain the most hazardous amounts. They can be identified by package markings or by shipping papers. Life threatening conditions may exist only if contents are released or package shielding fails. Because of design, evaluation, and testing of packages, these conditions would be expected only for accidents of utmost severity.
- Radioactive White-I labels indicate radiation levels outside single, isolated, undamaged packages are very low (less than 0.005 mSv/h (0.5 mrem/h)).
- Radioactive Yellow-II and Yellow-III labeled packages have higher radiation levels. The transport index (TI) on the label identifies the maximum radiation level in mrem/h one meter from a single, isolated, undamaged package.
- Radiation from the package contents, usually in durable metal capsules, can be detected by most radiation instruments.
- Water from cargo fire control is not expected to cause pollution.

FIRE OR EXPLOSION

- Packagings can burn completely without risk of content loss from sealed source capsule.
- Radioactivity does not change flammability or other properties of materials.
- Radioactive source capsules and Type B packages are designed and evaluated to withstand total engulfment in flames at temperatures of 800°C (1475°F).

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- **Priorities for rescue, life-saving, first aid, and control of fire and other hazards are higher than the priority for measuring radiation levels.**
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Stay upwind. • Keep unauthorized personnel away.
- Delay final cleanup until instructions or advice is received from Radiation Authority.

PROTECTIVE CLOTHING

- Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide adequate protection against internal radiation exposure, but not external radiation exposure.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

RADIOACTIVE MATERIALS (SPECIAL FORM/ LOW TO HIGH LEVEL EXTERNAL RADIATION)

EMERGENCY RESPONSE

FIRE

- Presence of radioactive material will not influence the fire control processes and should not influence selection of techniques.
- Move containers from fire area if you can do it without risk.
- Do not move damaged packages; move undamaged packages out of fire zone.

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Water spray, fog (flooding amounts).

SPILL OR LEAK

- Do not touch damaged packages or spilled material.
- Damp surfaces on undamaged or slightly damaged packages are seldom an indication of packaging failure. Contents are seldom liquid. Content is usually a metal capsule, easily seen if released from package.
- If source capsule is identified as being out of package, **DO NOT TOUCH**. Stay away and await advice from Radiation Authority.

FIRST AID

- Medical problems take priority over radiological concerns.
- Use first aid treatment according to the nature of the injury.
- Do not delay care and transport of a seriously injured person.
- Persons exposed to special form sources are not likely to be contaminated with radioactive material.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Injured persons contaminated by contact with released material are not a serious hazard to health care personnel, equipment or facilities.
- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

GUIDE 165

RADIOACTIVE MATERIALS (FISSILE/LOW TO HIGH LEVEL RADIATION)

POTENTIAL HAZARDS

HEALTH

- Radiation presents minimal risk to transport workers, emergency response personnel, and the public during transportation accidents. Packaging durability increases as potential radiation and criticality hazards of the content increase.
- Undamaged packages are safe. Contents of damaged packages may cause higher external radiation exposure, or both external and internal radiation exposure if contents are released.
- Type AF or IF packages, identified by package markings, do not contain life-threatening amounts of material. External radiation levels are low and packages are designed, evaluated, and tested to control releases and to prevent a fission chain reaction under severe transport conditions.
- Type B(U)F, B(M)F and CF packages (identified by markings on packages or shipping papers) contain potentially life endangering amounts. Because of design, evaluation, and testing of packages, fission chain reactions are prevented and releases are not expected to be life endangering for all accidents except those of utmost severity.
- The rarely occurring "Special Arrangement" shipments may be of Type AF, BF or CF packages. Package type will be marked on packages, and shipment details will be on shipping papers.
- The transport index (TI) shown on labels or a shipping paper might not indicate the radiation level at one meter from a single, isolated, undamaged package; instead, it might relate to controls needed during transport because of the fissile properties of the materials.
- Some radioactive materials cannot be detected by commonly available instruments.
- Water from cargo fire control is not expected to cause pollution.

FIRE OR EXPLOSION

- These materials are seldom flammable. Packages are designed to withstand fires without damage to contents.
- Radioactivity does not change flammability or other properties of materials.
- Type AF, IF, B(U)F, B(M)F and CF packages are designed and evaluated to withstand total engulfment in flames at temperatures of 800°C (1475°F) for a period of 30 minutes.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- **Priorities for rescue, life-saving, first aid, and control of fire and other hazards are higher than the priority for measuring radiation levels.**
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
  - Stay upwind.
  - Keep unauthorized personnel away.
- Detain or isolate uninjured persons or equipment suspected to be contaminated; delay decontamination and cleanup until instructions are received from Radiation Authority.

PROTECTIVE CLOTHING

- Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide adequate protection against internal radiation exposure, but not external radiation exposure.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

RADIOACTIVE MATERIALS (FISSILE/LOW TO HIGH LEVEL RADIATION)

GUIDE 165

EMERGENCY RESPONSE

FIRE

- Presence of radioactive material will not influence the fire control processes and should not influence selection of techniques.
- Move containers from fire area if you can do it without risk.
- Do not move damaged packages; move undamaged packages out of fire zone.

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Water spray, fog (flooding amounts).

SPILL OR LEAK

- Do not touch damaged packages or spilled material.
- Damp surfaces on undamaged or slightly damaged packages are seldom an indication of packaging failure. Most packaging for liquid content have inner containers and/or inner absorbent materials.

Liquid Spills

- Package contents are seldom liquid. If any radioactive contamination resulting from a liquid release is present, it probably will be low-level.

FIRST AID

- Medical problems take priority over radiological concerns.
- Use first aid treatment according to the nature of the injury.
- Do not delay care and transport of a seriously injured person.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Injured persons contaminated by contact with released material are not a serious hazard to health care personnel, equipment or facilities.
- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

RADIOACTIVE MATERIALS - CORROSIVE (URANIUM HEXAFLUORIDE/WATER-SENSITIVE)

POTENTIAL HAZARDS

HEALTH

- Radiation presents minimal risk to transport workers, emergency response personnel, and the public during transportation accidents. Packaging durability increases as potential radiation and criticality hazards of the content increase.
- Chemical hazard greatly exceeds radiation hazard.
- Substance reacts with water and water vapor in air to form toxic and corrosive hydrogen fluoride gas and an extremely irritating and corrosive, white-colored, water-soluble residue.
- If inhaled, may be fatal.
- Direct contact causes burns to skin, eyes, and respiratory tract.
- Low-level radioactive material; very low radiation hazard to people.
- Runoff from control of cargo fire may cause low-level pollution.

FIRE OR EXPLOSION

- Substance does not burn.
- Containers in protective overpacks (horizontal cylindrical shape with short legs for tie-downs), are identified with "AF" or "B(U)F" on shipping papers or by markings on the overpacks. They are designed and evaluated to withstand severe conditions including total engulfment in flames at temperatures of 800°C (1475°F).
- Bare filled cylinders, identified with UN2978 as part of the marking, may rupture in heat of engulfing fire; bare empty (except for residue) cylinders will not rupture in fires.
- The material may react violently with fuels.
- Radioactivity does not change flammability or other properties of materials.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- **Priorities for rescue, life-saving, first aid, and control of fire and other hazards are higher than the priority for measuring radiation levels.**
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions. • Stay upwind. • Keep unauthorized personnel away.
- Detain or isolate uninjured persons or equipment suspected to be contaminated; delay decontamination and cleanup until instructions are received from Radiation Authority.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

RADIOACTIVE MATERIALS - CORROSIVE (URANIUM HEXAFLUORIDE/WATER-SENSITIVE)

EMERGENCY RESPONSE

FIRE

- DO NOT USE WATER OR FOAM ON MATERIAL ITSELF.
- Move containers from fire area if you can do it without risk.

Small Fires

- Dry chemical or CO_2.

Large Fires

- Water spray, fog or regular foam.
- Cool containers with flooding quantities of water until well after fire is out.
- If this is impossible, withdraw from area and let fire burn.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Do not touch damaged packages or spilled material.
- Without fire or smoke, leak will be evident by visible and irritating vapors and residue forming at the point of release.
- Use fine water spray to reduce vapors; do not put water directly on point of material release from container.
- Residue buildup may self-seal small leaks.
- Dike far ahead of spill to collect runoff water.

FIRST AID

- Medical problems take priority over radiological concerns.
- Use first aid treatment according to the nature of the injury.
- Do not delay care and transport of a seriously injured person.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Injured persons contaminated by contact with released material are not a serious hazard to health care personnel, equipment or facilities.
- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled.**
- Vapors are extremely irritating.
- Contact with gas or liquefied gas will cause burns, severe injury and/or frostbite.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION

- Substance does not burn but will support combustion.
- This is a strong oxidizer and will react vigorously or explosively with many materials including fuels.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Vapor explosion and poison hazard indoors, outdoors or in sewers.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 to 200 meters (330 to 660 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, soda ash, lime or sand.

Large Fires

- Water spray, fog (flooding amounts).
- Do not get water inside containers.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- If you have not donned special protective clothing approved for this material, do not expose yourself to any risk of this material touching you.
- **Do not direct water at spill or source of leak.**
- A fine water spray remotely directed to the edge of the spill pool can be used to direct and maintain a hot flare fire which will burn the spilled material in a controlled manner.
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed.
- Ventilate the area.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Clothing frozen to the skin should be thawed before being removed.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet. • Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; Extremely Hazardous.**
- Inhalation extremely dangerous; may be fatal.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Odorless, will not be detected by sense of smell.

FIRE OR EXPLOSION

- **EXTREMELY FLAMMABLE.**
- May be ignited by heat, sparks or flames.
- Flame may be invisible.
- Containers may explode when heated.
- Vapor explosion and poison hazard indoors, outdoors or in sewers.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Runoff may create fire or explosion hazard.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 to 200 meters (330 to 660 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

Small Fires

- Dry chemical, CO_2 or water spray.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Substance is transported in molten form at a temperature above 705°C (1300°F).
- Violent reaction with water; contact may cause an explosion or may produce a flammable gas.
- Will ignite combustible materials (wood, paper, oil, debris, etc.).
- Contact with nitrates or other oxidizers may cause an explosion.
- Contact with containers or other materials, including cold, wet or dirty tools, may cause an explosion.
- Contact with concrete will cause spalling and small pops.

HEALTH

- Contact causes severe burns to skin and eyes.
- Fire may produce irritating and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear flame retardant structural firefighters' protective clothing, including faceshield, helmet and gloves, this will provide limited thermal protection.

EMERGENCY RESPONSE

FIRE

- **Do Not Use Water, except in life threatening situations and then only in a fine spray.**
- **Do not use halogenated extinguishing agents or foam.**
- Move combustibles out of path of advancing pool if you can do so without risk.
- Extinguish fires started by molten material by using appropriate method for the burning material; keep water, halogenated extinguishing agents and foam away from the molten material.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Do not attempt to stop leak, due to danger of explosion.
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Substance is very fluid, spreads quickly, and may splash. Do not try to stop it with shovels or other objects.
- Dike far ahead of spill; use dry sand to contain the flow of material.
- Where possible allow molten material to solidify naturally.
- Avoid contact even after material solidifies. Molten, heated and cold aluminum look alike; do not touch unless you know it is cold.
- Clean up under the supervision of an expert after material has solidified.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- For severe burns, immediate medical attention is required.
- Removal of solidified molten material from skin requires medical assistance.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.

METALS (POWDERS, DUSTS, SHAVINGS, BORINGS, TURNINGS, OR CUTTINGS, ETC.)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May react violently or explosively on contact with water.
- Some are transported in flammable liquids.
- May be ignited by friction, heat, sparks or flames.
- Some of these materials will burn with intense heat.
- Dusts or fumes may form explosive mixtures in air.
- Containers may explode when heated.
- May re-ignite after fire is extinguished.

HEALTH

- Oxides from metallic fires are a severe health hazard.
- Inhalation or contact with substance or decomposition products may cause severe injury or death.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Stay upwind.
- Keep unauthorized personnel away.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 50 meters (160 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

METALS (POWDERS, DUSTS, SHAVINGS, BORINGS, TURNINGS, OR CUTTINGS, ETC.)

EMERGENCY RESPONSE

FIRE

- **DO NOT USE WATER, FOAM OR CO_2.**
- Dousing metallic fires with water may generate hydrogen gas, an extremely dangerous explosion hazard, particularly if fire is in a confined environment (i.e., building, cargo hold, etc.).
- Use DRY sand, graphite powder, dry sodium chloride based extinguishers, G-1® or Met-L-X® powder.
- Confining and smothering metal fires is preferable rather than applying water.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- If impossible to extinguish, protect surroundings and allow fire to burn itself out.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Some may burn but none ignite readily.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Containers may explode when heated.
- Some may be transported hot.

HEALTH

- Inhalation of material may be harmful.
- Contact may cause burns to skin and eyes.
- Inhalation of Asbestos dust may have a damaging effect on the lungs.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 10 to 25 meters (30 to 80 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Do not scatter spilled material with high pressure water streams.
- Dike fire-control water for later disposal.

Fire involving Tanks

- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent dust cloud.
- Avoid inhalation of asbestos dust.

Small Dry Spills

- With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

Small Spills

- Take up with sand or other noncombustible absorbent material and place into containers for later disposal.

Large Spills

- Dike far ahead of liquid spill for later disposal.
- Cover powder spill with plastic sheet or tarp to minimize spreading.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- Inhalation of vapors or contact with substance will result in contamination and potential harmful effects.
- Fire will produce irritating, corrosive and/or toxic gases.

FIRE OR EXPLOSION

- Non-combustible, substance itself does not burn but may react upon heating to produce corrosive and/or toxic fumes.
- Runoff may pollute waterways.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 10 to 25 meters (30 to 80 feet) in all directions.
- Stay upwind.
- Keep unauthorized personnel away.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When any large container is involved in a fire, consider initial evacuation for 500 meters (1/3 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Use extinguishing agent suitable for type of surrounding fire.
- **Do not direct water at the heated metal.**

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Do not use steel or aluminum tools or equipment.
- Cover with earth, sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
- For mercury, use a mercury spill kit.
- Mercury spill areas may be subsequently treated with calcium sulphide/calcium sulfide or with sodium thiosulphate/sodium thiosulfate wash to neutralize any residual mercury.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

NOTES

INTRODUCTION TO THE TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

The Table of Initial Isolation and Protective Action Distances suggests distances useful to protect people from vapors resulting from spills involving dangerous goods which are considered toxic by inhalation (TIH), including certain chemical warfare agents, or which produce toxic gases upon contact with water. The Table provides first responders with initial guidance until technically qualified emergency response personnel are available. **Distances show areas likely to be affected during the first 30 minutes after materials are spilled and could increase with time.**

The **Initial Isolation Zone** defines an area SURROUNDING the incident in which persons may be exposed to dangerous (upwind) and life threatening (downwind) concentrations of material. The **Protective Action Zone** defines an area DOWNWIND from the incident in which persons may become incapacitated and unable to take protective action and/or incur serious or irreversible health effects. The Table provides specific guidance for small and large spills occurring day or night.

Adjusting distances for a specific incident involves many interdependent variables and should be made only by personnel technically qualified to make such adjustments. For this reason, no precise guidance can be provided in this document to aid in adjusting the table distances; however, general guidance follows.

Factors That May Change the Protective Action Distances

The guide for a material clearly indicates the evacuation distance required to protect against fragmentation hazard. If the material becomes involved in a **FIRE**, the toxic hazard may become less important than the fire or explosion hazard.

If more than one tank car, cargo tank, portable tank, or large cylinder involved in the incident is leaking, LARGE SPILL distances may need to be increased.

For material with a protective action distance of 11.0+ km (7.0+ miles), the actual distance can be larger in certain atmospheric conditions. If the dangerous goods vapor plume is channeled in a valley or between many tall buildings, distances may be larger than shown in the Table due to less mixing of the plume with the atmosphere. Daytime spills in regions with known strong inversions or snow cover, or occurring near sunset, accompanied by a steady wind, may require an increase in protective action distance. When these conditions are present, airborne contaminants mix and disperse more slowly and may travel much farther downwind. In addition, protective action distances may be larger for liquid spills when either the material or outdoor temperature exceeds 30°C (86°F).

Materials which react with water to produce significant toxic gases are included in the Table of Initial Isolation and Protective Action Distances. Note that some materials which are TIH (e.g., bromine trifluoride, thionyl chloride, etc.) produce additional TIH materials when spilled in water. For these materials, two entries are provided in the Table of Initial Isolation and Protective Action Distances. If it is not clear whether the spill is on land or in water, or in cases where the spill occurs both on land and in water, choose the larger Protective Action Distance. Following the Table of Initial Isolation and Protective Action Distances is a table that lists the materials which, when spilled in water, produce toxic gases and the toxic gases that these water reactive materials produce.

When a water reactive TIH producing material is spilled into a river or stream, the source of the toxic gas may move with the current or stretch from the spill point downstream for a substantial distance.

Certain chemical warfare agents have been added to the Table of Initial Isolation and Protective Action Distances. The distances shown were calculated using worst case scenarios for these agents **when used as a weapon**.

PROTECTIVE ACTION DECISION FACTORS TO CONSIDER

The choice of protective options for a given situation depends on a number of factors. For some cases, evacuation may be the best option; in others, sheltering in-place may be the best course. Sometimes, these two actions may be used in combination. In any emergency, officials need to quickly give the public instructions. The public will need continuing information and instructions while being evacuated or sheltered in-place.

Proper evaluation of the factors listed below will determine the effectiveness of evacuation or in-place protection. The importance of these factors can vary with emergency conditions. In specific emergencies, other factors may need to be identified and considered as well. This list indicates what kind of information may be needed to make the initial decision.

The Dangerous Goods

- Degree of health hazard
- Amount involved
- Containment/control of release
- Rate of vapor movement

The Population Threatened

- Location
- Number of people
- Time available to evacuate or shelter in-place
- Ability to control evacuation or shelter in-place
- Building types and availability
- Special institutions or populations, e.g., nursing homes, hospitals, prisons

Weather Conditions

- Effect on vapor and cloud movement
- Potential for change
- Effect on evacuation or protection in-place

PROTECTIVE ACTIONS

Protective Actions are those steps taken to preserve the health and safety of emergency responders and the public during an incident involving releases of dangerous goods. The Table of Initial Isolation and Protective Action Distances (green-bordered pages) predicts the size of downwind areas which could be affected by a cloud of toxic gas. People in this area should be evacuated and/or sheltered in-place inside buildings.

Isolate Hazard Area and Deny Entry means keep everybody away from the area if they are not directly involved in emergency response operations. Unprotected emergency responders should not be allowed to enter the isolation zone. This "isolation" task is done first to establish control over the area of operations. This is the first step for any protective actions that may follow. See the Table of Isolation and Protective Action Distances (green-bordered pages) for more detailed information on specific materials.

Evacuate means move all people from a threatened area to a safer place. To perform an evacuation, there must be enough time for people to be warned, to get ready, and to leave an area. If there is enough time, evacuation is the best protective action. Begin evacuating people nearby and those outdoors in direct view of the scene. When additional help arrives, expand the area to be evacuated downwind and crosswind to at least the extent recommended in this guidebook. Even after people move to the distances recommended, they may not be completely safe from harm. They should not be permitted to congregate at such distances. Send evacuees to a definite place, by a specific route, far enough away so they will not have to be moved again if the wind shifts.

Shelter In-Place means people should seek shelter inside a building and remain inside until the danger passes. **Sheltering in-place is used when evacuating the public would cause greater risk than staying where they are, or when an evacuation cannot be performed.** Direct the people inside to **close all doors and windows** and to **shut off all ventilating, heating and cooling systems.** In-place protection may not be the best option if (a) the vapors are flammable; (b) if it will take a long time for the gas to clear the area; or (c) if buildings cannot be closed tightly. Vehicles can offer some protection for a short period if the windows are closed and the ventilating systems are shut off. Vehicles are not as effective as buildings for in-place protection.

It is vital to maintain communications with competent persons inside the building so that they are advised about changing conditions. **Persons protected-in-place should be warned to stay far from windows** because of the danger from glass and projected metal fragments in a fire and/or explosion.

Every dangerous goods incident is different. Each will have special problems and concerns. Action to protect the public must be selected carefully. These pages can help with **initial** decisions on how to protect the public. Officials must continue to gather information and monitor the situation until the threat is removed.

BACKGROUND ON THE INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCE TABLE

Initial Isolation and Protective Action Distances in this guidebook were determined for small and large spills occurring during day or night. The overall analysis was statistical in nature and utilized state-of-the-art emission rate and dispersion models; statistical release data from the U.S. DOT HMIS (Hazardous Materials Incident Reporting System) database; 5 years of meteorological observations from over 120 locations in United States, Canada and Mexico; and the most current toxicological exposure guidelines.

For each chemical, thousands of hypothetical releases were modeled to account for the statistical variation in both release amount and atmospheric conditions. Based on this statistical sample, the 90% percentile Protective Action Distance for each chemical and category was selected to appear in the Table. A brief description of the analysis is provided below. A detailed report outlining the methodology and data used in the generation of the Initial Isolation and Protective Action Distances may be obtained from the U.S. Department of Transportation, Research and Special Programs Administration.

Release amounts and emission rates into the atmosphere were statistically modeled based on (1) data from the U.S. DOT HMIS database; (2) container types and sizes authorized for transport as specified in 49 CFR §172.101 and Part 173; (3) physical properties of the materials involved, and (4) atmospheric data from a historical database. The emission model calculated the release of vapor due to evaporation of pools on the ground, direct release of vapors from the container, or a combination of both, as would occur for liquefied gases which can flash to form both a vapor/aerosol mixture and an evaporating pool. In addition, the emission model also calculated the emission of toxic vapor by-products generated from spilling water-reactive chemicals in water. Spills that involve releases of approximately 200 liters or less are considered Small Spills, while spills that involve quantities greater than 200 liters are considered Large Spills.

Downwind dispersion of the vapor was estimated for each case modeled. Atmospheric parameters affecting the dispersion, and the emission rate, were selected in a statistical fashion from a database containing hourly meteorological data from 120 cities in United States, Canada and Mexico. The dispersion calculation accounted for the time dependent emission rate from the source as well as the density of the vapor plume (i.e., heavy gas effects). Since atmospheric mixing is less effective at dispersing vapor plumes during nighttime, day and night were separated in the analysis. In the Table, "Day" refers to time periods after sunrise and before sunset, while "Night" includes all hours between sunset and sunrise.

Toxicological short-term exposure guidelines for the chemicals were applied to determine the downwind distance to which persons may become incapacitated and unable to take protective action or may incur serious health effects. Toxicological exposure guidelines were chosen from (1) emergency response guidelines, (2) occupational health guidelines, or (3) lethal concentrations determined from animal studies, as recommended by an independent panel of toxicological experts from industry and academia.

HOW TO USE THE TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

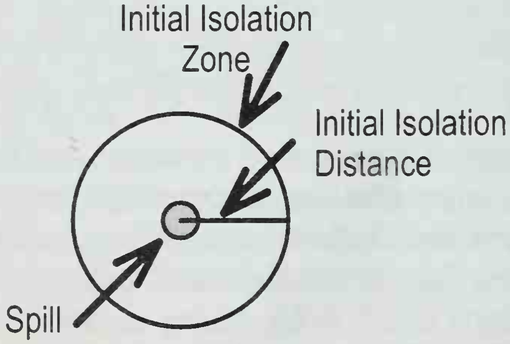
(1) The responder should already have:

- Identified the material by its ID Number and Name; (if an ID Number cannot be found, use the name of material index in the blue-bordered pages to locate that number.)
- Found the three-digit guide for that material in order to consult the emergency actions recommended jointly with this table;
- **Noted the wind direction.**

(2) Look in this Table (the green-bordered pages) for the ID Number and Name of the Material involved in the incident. Some ID Numbers have more than one shipping name listed—look for the specific name of the material. (If the shipping name is not known and the Table lists more than one name for the same ID Number, use the entry with the largest protective action distances.)

(3) Determine if the incident involves a SMALL or LARGE spill and if DAY or NIGHT. Generally, a SMALL SPILL is one which involves a single, small package (e.g., a drum containing up to approximately 200 liters), a small cylinder, or a small leak from a large package. A LARGE SPILL is one which involves a spill from a large package, or multiple spills from many small packages. DAY is any time after sunrise and before sunset. NIGHT is any time between sunset and sunrise.

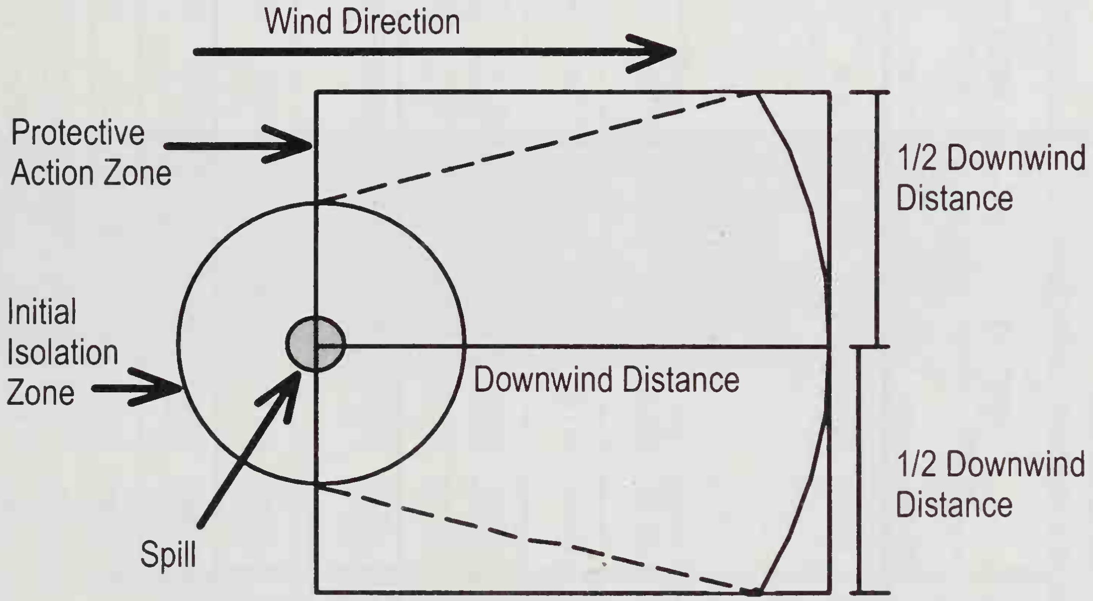
(4) Look up the initial ISOLATION distance. Direct all persons to move, in a crosswind direction, away from the spill to the distance specified—in meters and feet.



(5) Look up the initial PROTECTIVE ACTION DISTANCE shown in the Table. For a given dangerous goods, spill size, and whether day or night, the Table gives the downwind distance—in kilometers and miles— for which protective actions should be considered. For practical purposes, the Protective Action Zone (i.e., the area in which people are at risk of harmful exposure) is a square, whose length and width are the same as the downwind distance shown in the Table.

(6) Initiate Protective Actions to the extent possible, beginning with those closest to the spill site and working away from the site in the downwind direction. When a water-reactive TIH producing material is spilled into a river or stream, the source of the toxic gas may move with the current or stretch from the spill point downstream for a substantial distance.

The shape of the area in which protective actions should be taken (the Protective Action Zone) is shown in this figure. The spill is located at the center of the small circle. The larger circle represents the INITIAL ISOLATION zone around the spill.


Wind Direction
Protective Action Zone
1/2 Downwind Distance
Initial Isolation Zone
Downwind Distance
1/2 Downwind Distance
Spill

NOTE: See "Introduction To The Table Of Initial Isolation And Protective Action Distances" for factors which may increase or decrease Protective Action Distances.

Call the emergency response telephone number listed on the shipping paper, or the appropriate response agency as soon as possible for additional information on the material, safety precautions, and mitigation procedures.

TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during-			
				DAY		NIGHT				DAY		NIGHT	
ID No.	NAME OF MATERIAL	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
1005	Ammonia, anhydrous	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.1 km	(0.7 mi)
1005	Ammonia, anhydrous, liquefied												
1005	Ammonia, solution, with more than 50% Ammonia												
1005	Anhydrous ammonia												
1005	Anhydrous ammonia, liquefied												
1008	Boron trifluoride	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	215 m	(700 ft)	1.6 km	(1.0 mi)	5.1 km	(3.2 mi)
1008	Boron trifluoride, compressed												
1016	Carbon monoxide	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	125 m	(400 ft)	0.6 km	(0.4 mi)	1.8 km	(1.1 mi)
1016	Carbon monoxide, compressed												
1017	Chlorine	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	275 m	(900 ft)	2.7 km	(1.7 mi)	6.8 km	(4.2 mi)
1023	Coal gas	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
1023	Coal gas, compressed												
1026	Cyanogen	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	305 m	(1000 ft)	3.1 km	(1.9 mi)	7.7 km	(4.8 mi)
1026	Cyanogen, liquefied												
1026	Cyanogen gas												
1040	Ethylene oxide	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.8 km	(1.1 mi)
1040	Ethylene oxide with Nitrogen												
1045	Fluorine	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	185 m	(600 ft)	1.4 km	(0.9 mi)	4.0 km	(2.5 mi)
1045	Fluorine, compressed												
1048	Hydrogen bromide, anhydrous	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	3.4 km	(2.1 mi)
1050	Hydrogen chloride, anhydrous	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
1051	AC **(when used as a weapon)**	60 m	(200 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	460 m	(1500 ft)	1.6 km	(1.0 mi)	3.9 km	(2.4 mi)

1051 1051 1051 1051	Hydrocyanic acid, aqueous solutions, with more than 20% Hydrogen cyanide Hydrocyanic acid, liquefied Hydrogen cyanide, anhydrous, stabilized Hydrogen cyanide, stabilized	60 m	(200 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	400 m	(1300 ft)	1.3 km	(0.8 mi)	3.4 km	(2.1 mi)
1052	Hydrogen fluoride, anhydrous	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	2.9 km	(1.8 mi)
1053 1053 1053 1053	Hydrogen sulfide Hydrogen sulfide, liquefied Hydrogen sulphide Hydrogen sulphide, liquefied	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	215 m	(700 ft)	1.4 km	(0.9 mi)	4.3 km	(2.7 mi)
1062	Methyl bromide	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	0.5 km	(0.3 mi)	1.4 km	(0.9 mi)
1064	Methyl mercaptan	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	0.8 km	(0.5 mi)	2.7 km	(1.7 mi)
1067 1067 1067 1067 1067 1067	Dinitrogen tetroxide Dinitrogen tetroxide, liquefied Nitrogen dioxide Nitrogen dioxide, liquefied Nitrogen peroxide, liquid Nitrogen tetroxide, liquid	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	305 m	(1000 ft)	1.3 km	(0.8 mi)	3.9 km	(2.4 mi)
1069	Nitrosyl chloride	30 m	(100 ft)	0.3 km	(0.2 mi)	1.4 km	(0.9 mi)	365 m	(1200 ft)	3.5 km	(2.2 mi)	9.8 km	(6.1 mi)
1071 1071	Oil gas Oil gas, compressed	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
1076	CG **(when used as a weapon)**	155 m	(500 ft)	1.3 km	(0.8 mi)	3.2 km	(2.0 mi)	765 m	(2500 ft)	7.2 km	(4.5 mi)	11.0+ km	(7.0+ mi)
1076	Diphosgene	60 m	(200 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	95 m	(300 ft)	1.0 km	(0.6 mi)	1.9 km	(1.2 mi)
1076	DP **(when used as a weapon)**	60 m	(200 ft)	0.3 km	(0.2 mi)	1.0 km	(0.6 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.5 km	(2.8 mi)
1076	Phosgene	95 m	(300 ft)	0.8 km	(0.5 mi)	2.7 km	(1.7 mi)	765 m	(2500 ft)	6.6 km	(4.1 mi)	11.0 km	(6.9 mi)
1079 1079 1079 1079	Sulfur dioxide Sulfur dioxide, liquefied Sulphur dioxide Sulphur dioxide, liquefied	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	185 m	(600 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)

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TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during-			
				DAY		NIGHT				DAY		NIGHT	
ID No.	NAME OF MATERIAL	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
1082 1082	Trifluorochloroethylene Trifluorochloroethylene, inhibited	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.8 km	(0.5 mi)
1092	Acrolein, inhibited	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	400 m	(1300 ft)	3.9 km	(2.4 mi)	7.9 km	(4.9 mi)
1098	Allyl alcohol	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.6 km	(0.4 mi)
1135	Ethylene chlorohydrin	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.3 km	(0.8 mi)
1143 1143	Crotonaldehyde, inhibited Crotonaldehyde, stabilized	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.8 km	(0.5 mi)
1162	Dimethyldichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	2.9 km	(1.8 mi)
1163 1163	1,1-Dimethylhydrazine Dimethylhydrazine, unsymmetrical	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.1 km	(0.7 mi)
1182	Ethyl chloroformate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.4 km	(0.9 mi)
1185	Ethyleneimine, inhibited	30 m	(100 ft)	0.3 km	(0.2 mi)	0.8 km	(0.5 mi)	155 m	(500 ft)	1.4 km	(0.9 mi)	3.5 km	(2.2 mi)
1238	Methyl chloroformate	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	155 m	(500 ft)	1.6 km	(1.0 mi)	3.4 km	(2.1 mi)
1239	Methyl chloromethyl ether	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	2.7 km	(1.7 mi)
1242	Methyldichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)
1244	Methylhydrazine	30 m	(100 ft)	0.3 km	(0.2 mi)	0.8 km	(0.5 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	2.7 km	(1.7 mi)
1250	Methyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	2.9 km	(1.8 mi)
1251 1251	Methyl vinyl ketone Methyl vinyl ketone, stabilized	155 m	(500 ft)	1.3 km	(0.8 mi)	3.4 km	(2.1 mi)	915 m	(3000 ft)	8.7 km	(5.4 mi)	11.0+ km	(7.0+ mi)

1259	Nickel carbonyl	60 m	(200 ft)	0.6 km	(0.4 mi)	2.1 km	(1.3 mi)	215 m	(700 ft)	2.1 km	(1.3 mi)	4.3 km	(2.7 mi)
1295	Trichlorosilane (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	125 m	(400 ft)	1.3 km	(0.8 mi)	3.2 km	(2.0 mi)
1298	Trimethylchlorosilane (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	95 m	(300 ft)	0.8 km	(0.5 mi)	2.3 km	(1.4 mi)
1340	Phosphorus pentasulfide, free from yellow or white Phosphorus (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	155 m	(500 ft)	1.3 km	(0.8 mi)	3.2 km	(2.0 mi)
1340	Phosphorus pentasulphide, free from yellow or white Phosphorus (when spilled in water)												
1360	Calcium phosphide (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	215 m	(700 ft)	2.1 km	(1.3 mi)	5.3 km	(3.3 mi)
1380	Pentaborane	155 m	(500 ft)	1.3 km	(0.8 mi)	3.7 km	(2.3 mi)	765 m	(2500 ft)	6.6 km	(4.1 mi)	10.6 km	(6.6 mi)
1384	Sodium dithionite (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)
1384	Sodium hydrosulfite (when spilled in water)												
1384	Sodium hydrosulphite (when spilled in water)												
1397	Aluminum phosphide (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	245 m	(800 ft)	2.4 km	(1.5 mi)	6.4 km	(4.0 mi)
1412	Lithium amide (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	95 m	(300 ft)	0.8 km	(0.5 mi)	1.9 km	(1.2 mi)
1419	Magnesium aluminum phosphide (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	215 m	(700 ft)	2.1 km	(1.3 mi)	5.5 km	(3.4 mi)
1432	Sodium phosphide (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	155 m	(500 ft)	1.4 km	(0.9 mi)	4.0 km	(2.5 mi)
1433	Stannic phosphides (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.7 km	(2.9 mi)
1510	Tetranitromethane	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.3 km	(0.8 mi)

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TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

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		First **ISOLATE** in all Directions	Then **PROTECT** persons Downwind during-		First **ISOLATE** in all Directions	Then **PROTECT** persons Downwind during-	
ID No.	**NAME OF MATERIAL**	Meters (Feet)	**DAY** Kilometers (Miles)	**NIGHT** Kilometers (Miles)	Meters (Feet)	**DAY** Kilometers (Miles)	**NIGHT** Kilometers (Miles)
1541	Acetone cyanohydrin, stabilized **(when spilled in water)**	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	95 m (300 ft)	0.8 km (0.5 mi)	2.1 km (1.3 mi)
1556	MD **(when used as a weapon)**	30 m (100 ft)	0.3 km (0.2 mi)	0.8 km (0.5 mi)	125 m (400 ft)	1.3 km (0.8 mi)	3.5 km (2.2 mi)
1556	Methyldichloroarsine	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.0 km (0.6 mi)
1556	PD **(when used as a weapon)**	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)
1560 1560	Arsenic chloride Arsenic trichloride	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.6 km (0.4 mi)	1.4 km (0.9 mi)
1569	Bromoacetone	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	95 m (300 ft)	0.8 km (0.5 mi)	1.9 km (1.2 mi)
1580	Chloropicrin	60 m (200 ft)	0.5 km (0.3 mi)	1.3 km (0.8 mi)	185 m (600 ft)	1.8 km (1.1 mi)	4.0 km (2.5 mi)
1581 1581	Chloropicrin and Methyl bromide mixture Methyl bromide and Chloropicrin mixtures	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)	125 m (400 ft)	1.3 km (0.8 mi)	3.1 km (1.9 mi)
1581	Methyl bromide and more than 2% Chloropicrin mixture, liquid	30 m (100 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	215 m (700 ft)	2.1 km (1.3 mi)	5.6 km (3.5 mi)
1582 1582	Chloropicrin and Methyl chloride mixture Methyl chloride and Chloropicrin mixtures	30 m (100 ft)	0.2 km (0.1 mi)	0.8 km (0.5 mi)	95 m (300 ft)	1.0 km (0.6 mi)	3.2 km (2.0 mi)
1583	Chloropicrin, absorbed	60 m (200 ft)	0.5 km (0.3 mi)	1.3 km (0.8 mi)	185 m (600 ft)	1.8 km (1.1 mi)	4.0 km (2.5 mi)
1583	Chloropicrin mixture, n.o.s.	30 m (100 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	215 m (700 ft)	2.1 km (1.3 mi)	5.6 km (3.5 mi)
1589	CK **(when used as a weapon)**	60 m (200 ft)	0.6 km (0.4 mi)	2.4 km (1.5 mi)	400 m (1300 ft)	4.0 km (2.5 mi)	8.0 km (5.0 mi)

1589	Cyanogen chloride, inhibited	60 m	(200 ft)	0.5 km	(0.3 mi)	1.8 km	(1.1 mi)	275 m	(900 ft)	2.7 km	(1.7 mi)	6.8 km	(4.2 mi)
1595 1595	Dimethyl sulfate Dimethyl sulphate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.6 km	(0.4 mi)
1605	Ethylene dibromide	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
1612	Hexaethyl tetraphosphate and compressed gas mixture	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.4 km	(0.9 mi)
1613 1613	Hydrocyanic acid, aqueous solution, with not more than 20% Hydrogen cyanide (when "Inhalation Hazard" is on a package or shipping paper) Hydrogen cyanide, aqueous solution, with not more than 20% Hydrogen cyanide (when "Inhalation Hazard" is on a package or shipping paper)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	125 m	(400 ft)	0.5 km	(0.3 mi)	1.3 km	(0.8 mi)
1614 1614	Hydrogen cyanide, anhydrous, stabilized (absorbed) Hydrogen cyanide, stabilized (absorbed)	60 m	(200 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	400 m	(1300 ft)	1.3 km	(0.8 mi)	3.4 km	(2.1 mi)
1647 1647	Ethylene dibromide and Methyl bromide mixture, liquid Methyl bromide and Ethylene dibromide mixture, liquid	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
1660 1660	Nitric oxide Nitric oxide, compressed	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	155 m	(500 ft)	1.3 km	(0.8 mi)	3.5 km	(2.2 mi)
1670	Perchloromethyl mercaptan	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.1 km	(0.7 mi)
1680	Potassium cyanide **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	0.8 km	(0.5 mi)	2.6 km	(1.6 mi)
1689	Sodium cyanide **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	1.0 km	(0.6 mi)	2.6 km	(1.6 mi)
1694	CA **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	155 m	(500 ft)	1.6 km	(1.0 mi)	4.2 km	(2.6 mi)

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		First **ISOLATE** in all Directions	Then **PROTECT** persons Downwind during-		First **ISOLATE** in all Directions	Then **PROTECT** persons Downwind during-	
ID No.	**NAME OF MATERIAL**	Meters (Feet)	**DAY** Kilometers (Miles)	**NIGHT** Kilometers (Miles)	Meters (Feet)	**DAY** Kilometers (Miles)	**NIGHT** Kilometers (Miles)
1695	Chloroacetone, stabilized	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.6 km (0.4 mi)	1.3 km (0.8 mi)
1697	CN (**when used as a weapon**)	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)	125 m (400 ft)	1.1 km (0.7 mi)	3.2 km (2.0 mi)
1698 1698	Adamsite (**when used as a weapon**) DM (**when used as a weapon**)	60 m (200 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	185 m (600 ft)	2.3 km (1.4 mi)	5.1 km (3.2 mi)
1699	DA (**when used as a weapon**)	60 m (200 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	185 m (600 ft)	2.3 km (1.4 mi)	5.1 km (3.2 mi)
1703 1703	Tetraethyl dithiopyrophosphate and gases, in solution Tetraethyl dithiopyrophosphate and gases, mixtures	30 m (100 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	365 m (1200 ft)	3.7 km (2.3 mi)	6.9 km (4.3 mi)
1703	Tetraethyl dithiopyrophosphate and gases, mixtures, or in solution (LC50 more than 200 ppm but not more than 5000 ppm)	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)	125 m (400 ft)	0.8 km (0.5 mi)	2.9 km (1.8 mi)
1703	Tetraethyl dithiopyrophosphate and gases, mixtures, or in solution (LC50 not more than 200 ppm)	30 m (100 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	365 m (1200 ft)	3.7 km (2.3 mi)	6.9 km (4.3 mi)
1705	Tetraethyl pyrophosphate and compressed gas mixtures	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	400 m (1300 ft)	4.0 km (2.5 mi)	7.2 km (4.5 mi)
1705	Tetraethyl pyrophosphate and compressed gas mixtures (LC50 more than 200 ppm but not more than 5000 ppm)	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)	125 m (400 ft)	0.8 km (0.5 mi)	2.9 km (1.8 mi)
1705	Tetraethyl pyrophosphate and compressed gas mixtures (LC50 not more than 200 ppm)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	400 m (1300 ft)	4.0 km (2.5 mi)	7.2 km (4.5 mi)

1714	Zinc phosphide (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.8 km (0.5 mi)	185 m (600 ft)	1.8 km (1.1 mi)	5.1 km (3.2 mi)
1716	Acetyl bromide (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	95 m (300 ft)	0.8 km (0.5 mi)	2.3 km (1.4 mi)
1717	Acetyl chloride (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	95 m (300 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)
1722 1722	Allyl chlorocarbonate Allyl chloroformate	155 m (500 ft)	1.3 km (0.8 mi)	2.7 km (1.7 mi)	610 m (2000 ft)	6.1 km (3.8 mi)	10.8 km (6.7 mi)
1724	Allyltrichlorosilane, stabilized (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	125 m (400 ft)	1.0 km (0.6 mi)	2.9 km (1.8 mi)
1725	Aluminum bromide, anhydrous (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	95 m (300 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)
1726	Aluminum chloride, anhydrous (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)
1728	Amyltrichlorosilane (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)
1732	Antimony pentafluoride (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	155 m (500 ft)	1.6 km (1.0 mi)	3.7 km (2.3 mi)
1736	Benzoyl chloride (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)
1741	Boron trichloride	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.6 km (0.4 mi)	1.6 km (1.0 mi)
1744 1744	Bromine Bromine, solution	60 m (200 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	185 m (600 ft)	1.6 km (1.0 mi)	4.0 km (2.5 mi)
1745	Bromine pentafluoride (when spilled on land)	60 m (200 ft)	0.5 km (0.3 mi)	1.3 km (0.8 mi)	245 m (800 ft)	2.3 km (1.4 mi)	5.0 km (3.1 mi)
1745	Bromine pentafluoride (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.8 km (0.5 mi)	215 m (700 ft)	1.9 km (1.2 mi)	4.2 km (2.6 mi)
1746	Bromine trifluoride (when spilled on land)	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.3 km (0.2 mi)	0.8 km (0.5 mi)

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TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)			LARGE SPILLS (From a large package or from many small packages)		
		First ISOLATE in all Directions	Then PROTECT persons Downwind during-		First ISOLATE in all Directions	Then PROTECT persons Downwind during-	
ID No.	NAME OF MATERIAL	Meters (Feet)	DAY Kilometers (Miles)	NIGHT Kilometers (Miles)	Meters (Feet)	DAY Kilometers (Miles)	NIGHT Kilometers (Miles)
1746	Bromine trifluoride **(when spilled in water)**	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	185 m (600 ft)	2.1 km (1.3 mi)	5.5 km (3.4 mi)
1747	Butyltrichlorosilane **(when spilled in water)**	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.8 km (1.1 mi)
1749	Chlorine trifluoride	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	335 m (1100 ft)	3.4 km (2.1 mi)	7.7 km (4.8 mi)
1752	Chloroacetyl chloride **(when spilled on land)**	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)	95 m (300 ft)	0.8 km (0.5 mi)	1.6 km (1.0 mi)
1752	Chloroacetyl chloride **(when spilled in water)**	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)
1754	Chlorosulfonic acid **(when spilled on land)**	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)
1754	Chlorosulfonic acid **(when spilled in water)**	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.4 km (0.9 mi)
1754	Chlorosulfonic acid and Sulfur trioxide mixture **(when spilled on land)**	60 m (200 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	305 m (1000 ft)	2.1 km (1.3 mi)	5.6 km (3.5 mi)
1754	Chlorosulfonic acid and Sulfur trioxide mixture **(when spilled in water)**						
1754	Chlorosulphonic acid **(when spilled on land)**	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)
1754	Chlorosulphonic acid **(when spilled in water)**	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.4 km (0.9 mi)

1754	Chlorosulphonic acid and Sulphur trioxide mixture **(when spilled on land)**	60 m (200 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	305 m (1000 ft)	2.1 km (1.3 mi)	5.6 km (3.5 mi)
1754	Chlorosulphonic acid and Sulphur trioxide mixture **(when spilled in water)**						
1754	Sulfur trioxide and Chlorosulfonic acid mixture **(when spilled on land)**						
1754	Sulfur trioxide and Chlorosulfonic acid mixture **(when spilled in water)**						
1754	Sulphur trioxide and Chlorosulphonic acid mixture **(when spilled on land)**						
1754	Sulphur trioxide and Chlorosulphonic acid mixture **(when spilled in water)**						
1758	Chromium oxychloride **(when spilled in water)**	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)
1777	Fluorosulfonic acid **(when spilled in water)**	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.4 km (0.9 mi)
1777	Fluorosulphonic acid **(when spilled in water)**						
1801	Octyltrichlorosilane **(when spilled in water)**	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	95 m (300 ft)	0.8 km (0.5 mi)	2.4 km (1.5 mi)
1806	Phosphorus pentachloride **(when spilled in water)**	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	125 m (400 ft)	1.0 km (0.6 mi)	2.9 km (1.8 mi)
1809	Phosphorus trichloride **(when spilled on land)**	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	125 m (400 ft)	1.1 km (0.7 mi)	2.7 km (1.7 mi)
1809	Phosphorus trichloride **(when spilled in water)**	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	125 m (400 ft)	1.1 km (0.7 mi)	2.6 km (1.6 mi)
1810	Phosphorus oxychloride **(when spilled on land)**	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)	95 m (300 ft)	0.8 km (0.5 mi)	1.8 km (1.1 mi)
1810	Phosphorus oxychloride **(when spilled in water)**	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	95 m (300 ft)	1.0 km (0.6 mi)	2.6 km (1.6 mi)

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TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

ID No.	NAME OF MATERIAL	SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during-			
				DAY		NIGHT				DAY		NIGHT	
		Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
1818	Silicon tetrachloride (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	125 m	(400 ft)	1.3 km	(0.8 mi)	3.4 km	(2.1 mi)
1828	Sulfur chlorides (when spilled on land)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.0 km	(0.6 mi)
1828	Sulfur chlorides (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	2.3 km	(1.4 mi)
1828	Sulphur chlorides (when spilled on land)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.0 km	(0.6 mi)
1828	Sulphur chlorides (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	2.3 km	(1.4 mi)
1829	Sulfur trioxide	60 m	(200 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	305 m	(1000 ft)	2.1 km	(1.3 mi)	5.6 km	(3.5 mi)
1829	Sulfur trioxide, inhibited												
1829	Sulfur trioxide, stabilized												
1829	Sulfur trioxide, uninhibited												
1829	Sulphur trioxide												
1829	Sulphur trioxide, inhibited												
1829	Sulphur trioxide, stabilized												
1829	Sulphur trioxide, uninhibited												
1831	Oleum	60 m	(200 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	305 m	(1000 ft)	2.1 km	(1.3 mi)	5.6 km	(3.5 mi)
1831	Oleum, with not less than 30% free Sulfur trioxide												
1831	Oleum, with not less than 30% free Sulphur trioxide												
1831	Sulfuric acid, fuming												
1831	Sulfuric acid, fuming, with not less than 30% free Sulfur trioxide												
1831	Sulphuric acid, fuming												
1831	Sulphuric acid, fuming, with not less than 30% free Sulphur trioxide												

1834	Sulfuryl chloride (when spilled on land)	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.6 km (0.4 mi)
1834	Sulfuryl chloride (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	125 m (400 ft)	1.1 km (0.7 mi)	2.4 km (1.5 mi)
1834	Sulphuryl chloride (when spilled on land)	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.6 km (0.4 mi)
1834	Sulphuryl chloride (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	125 m (400 ft)	1.1 km (0.7 mi)	2.4 km (1.5 mi)
1836	Thionyl chloride (when spilled on land)	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.1 km (0.7 mi)
1836	Thionyl chloride (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	1.0 km (0.6 mi)	335 m (1100 ft)	3.2 km (2.0 mi)	7.1 km (4.4 mi)
1838	Titanium tetrachloride (when spilled on land)	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.8 km (0.5 mi)
1838	Titanium tetrachloride (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	125 m (400 ft)	1.1 km (0.7 mi)	2.9 km (1.8 mi)
1859 1859	Silicon tetrafluoride Silicon tetrafluoride, compressed	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)
1892	ED (when used as a weapon)	30 m (100 ft)	0.3 km (0.2 mi)	0.8 km (0.5 mi)	125 m (400 ft)	1.3 km (0.8 mi)	2.6 km (1.6 mi)
1892	Ethyldichloroarsine	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.0 km (0.6 mi)
1898	Acetyl iodide (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.6 km (0.4 mi)	1.6 km (1.0 mi)
1911 1911	Diborane Diborane, compressed	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	95 m (300 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)
1923 1923 1923	Calcium dithionite (when spilled in water) Calcium hydrosulfite (when spilled in water) Calcium hydrosulphite (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)

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TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

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		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
1939 1939	Phosphorus oxybromide **(when spilled in water)** Phosphorus oxybromide, solid **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	0.6 km	(0.4 mi)	1.9 km	(1.2 mi)
1953	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone A)	185 m	(600 ft)	1.8 km	(1.1 mi)	5.6 km	(3.5 mi)	915 m	(3000 ft)	10.8 km	(6.7 mi)	11.0+ km	(7.0+ mi)
1953	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	305 m	(1000 ft)	3.1 km	(1.9 mi)	7.7 km	(4.8 mi)
1953	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	215 m	(700 ft)	2.1 km	(1.3 mi)	5.6 km	(3.5 mi)
1953	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
1953	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone A)	185 m	(600 ft)	1.8 km	(1.1 mi)	5.6 km	(3.5 mi)	915 m	(3000 ft)	10.8 km	(6.7 mi)	11.0+ km	(7.0+ mi)
1953	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	305 m	(1000 ft)	3.1 km	(1.9 mi)	7.7 km	(4.8 mi)
1953	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	215 m	(700 ft)	2.1 km	(1.3 mi)	5.6 km	(3.5 mi)
1953	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)

1953 1953	Compressed gas, poisonous, flammable, n.o.s. Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	185 m	(600 ft)	1.8 km	(1.1 mi)	5.6 km	(3.5 mi)	915 m	(3000 ft)	10.8 km	(6.7 mi)	11.0+ km	(7.0+ mi)
1953	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	305 m	(1000 ft)	3.1 km	(1.9 mi)	7.7 km	(4.8 mi)
1953	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	215 m	(700 ft)	2.1 km	(1.3 mi)	5.6 km	(3.5 mi)
1953	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
1953 1953	Compressed gas, toxic, flammable, n.o.s. Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	185 m	(600 ft)	1.8 km	(1.1 mi)	5.6 km	(3.5 mi)	915 m	(3000 ft)	10.8 km	(6.7 mi)	11.0+ km	(7.0+ mi)
1953	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	305 m	(1000 ft)	3.1 km	(1.9 mi)	7.7 km	(4.8 mi)
1953	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	215 m	(700 ft)	2.1 km	(1.3 mi)	5.6 km	(3.5 mi)
1953	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
1953 1953	Liquefied gas, flammable, poisonous, n.o.s. Liquefied gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone A)	185 m	(600 ft)	1.8 km	(1.1 mi)	5.6 km	(3.5 mi)	915 m	(3000 ft)	10.8 km	(6.7 mi)	11.0+ km	(7.0+ mi)

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		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during-			
				DAY		NIGHT				DAY		NIGHT	
ID No.	NAME OF MATERIAL	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
1953	Liquefied gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	305 m	(1000 ft)	3.1 km	(1.9 mi)	7.7 km	(4.8 mi)
1953	Liquefied gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	215 m	(700 ft)	2.1 km	(1.3 mi)	5.6 km	(3.5 mi)
1953	Liquefied gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
1953 1953	Liquefied gas, flammable, toxic, n.o.s. Liquefied gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone A)	185 m	(600 ft)	1.8 km	(1.1 mi)	5.6 km	(3.5 mi)	915 m	(3000 ft)	10.8 km	(6.7 mi)	11.0+ km	(7.0+ mi)
1953	Liquefied gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	305 m	(1000 ft)	3.1 km	(1.9 mi)	7.7 km	(4.8 mi)
1953	Liquefied gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	215 m	(700 ft)	2.1 km	(1.3 mi)	5.6 km	(3.5 mi)
1953	Liquefied gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
1953	Poisonous gas, flammable, n.o.s.	185 m	(600 ft)	1.8 km	(1.1 mi)	5.6 km	(3.5 mi)	915 m	(3000 ft)	10.8 km	(6.7 mi)	11.0+ km	(7.0+ mi)
1953	Poisonous liquid, flammable, n.o.s.	155 m	(500 ft)	1.3 km	(0.8 mi)	3.4 km	(2.1 mi)	915 m	(3000 ft)	8.7 km	(5.4 mi)	11.0+ km	(7.0+ mi)
1955 1955	Compressed gas, poisonous, n.o.s. Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
1955	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	430 m	(1400 ft)	4.0 km	(2.5 mi)	9.8 km	(6.1 mi)

1955	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	215 m (700 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)
1955	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	185 m (600 ft)	1.6 km (1.0 mi)	4.3 km (2.7 mi)
1955 1955	Compressed gas, toxic, n.o.s. Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone A)	430 m (1400 ft)	4.2 km (2.6 mi)	8.4 km (5.2 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
1955	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	430 m (1400 ft)	4.0 km (2.5 mi)	9.8 km (6.1 mi)
1955	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	215 m (700 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)
1955	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	185 m (600 ft)	1.6 km (1.0 mi)	4.3 km (2.7 mi)
1955 1955	Liquefied gas, poisonous, n.o.s. Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone A)	430 m (1400 ft)	4.2 km (2.6 mi)	8.4 km (5.2 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
1955	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	430 m (1400 ft)	4.0 km (2.5 mi)	9.8 km (6.1 mi)
1955	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	215 m (700 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)
1955	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	185 m (600 ft)	1.6 km (1.0 mi)	4.3 km (2.7 mi)
1955 1955	Liquefied gas, toxic, n.o.s. Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone A)	430 m (1400 ft)	4.2 km (2.6 mi)	8.4 km (5.2 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
1955	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	430 m (1400 ft)	4.0 km (2.5 mi)	9.8 km (6.1 mi)
1955	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	215 m (700 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)
1955	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	185 m (600 ft)	1.6 km (1.0 mi)	4.3 km (2.7 mi)

"+" means distance can be larger in certain atmospheric conditions

TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during			
				DAY		NIGHT				DAY		NIGHT	
ID No.	NAME OF MATERIAL	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
1955	Methyl bromide and nonflammable, nonliquefied compressed gas mixture	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	0.5 km	(0.3 mi)	1.4 km	(0.9 mi)
1955	Organic phosphate compound mixed with compressed gas	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	400 m	(1300 ft)	4.0 km	(2.5 mi)	7.2 km	(4.5 mi)
1955	Organic phosphate mixed with compressed gas												
1955	Organic phosphorus compound mixed with compressed gas												
1967	Insecticide gas, poisonous, n.o.s.	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	400 m	(1300 ft)	4.0 km	(2.5 mi)	7.2 km	(4.5 mi)
1967	Insecticide gas, toxic, n.o.s.												
1967	Parathion and compressed gas mixture	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	1.0 km	(0.6 mi)	3.2 km	(2.0 mi)
1975	Dinitrogen tetroxide and Nitric oxide mixture	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	155 m	(500 ft)	1.3 km	(0.8 mi)	3.5 km	(2.2 mi)
1975	Nitric oxide and Dinitrogen tetroxide mixture												
1975	Nitric oxide and Nitrogen dioxide mixture												
1975	Nitric oxide and Nitrogen tetroxide mixture												
1975	Nitrogen dioxide and Nitric oxide mixture												
1975	Nitrogen tetroxide and Nitric oxide mixture												
1994	Iron pentacarbonyl	30 m	(100 ft)	0.3 km	(0.2 mi)	0.6 km	(0.4 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	2.4 km	(1.5 mi)
2004	Magnesium diamide **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.3 km	(0.8 mi)

2011	Magnesium phosphide **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	245 m	(800 ft)	2.3 km	(1.4 mi)	6.0 km	(3.7 mi)
2012	Potassium phosphide **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	155 m	(500 ft)	1.3 km	(0.8 mi)	4.0 km	(2.5 mi)
2013	Strontium phosphide **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	155 m	(500 ft)	1.3 km	(0.8 mi)	3.7 km	(2.3 mi)
2032 2032	Nitric acid, fuming Nitric acid, red fuming	95 m	(300 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)	400 m	(1300 ft)	1.3 km	(0.8 mi)	3.5 km	(2.2 mi)
2186	Hydrogen chloride, refrigerated liquid	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
2188	Arsine	60 m	(200 ft)	0.5 km	(0.3 mi)	2.1 km	(1.3 mi)	335 m	(1100 ft)	3.2 km	(2.0 mi)	6.6 km	(4.1 mi)
2188	SA **(when used as a weapon)**	60 m	(200 ft)	0.8 km	(0.5 mi)	2.4 km	(1.5 mi)	400 m	(1300 ft)	4.0 km	(2.5 mi)	8.0 km	(5.0 mi)
2189	Dichlorosilane	30 m	(100 ft)	0.3 km	(0.2 mi)	1.0 km	(0.6 mi)	245 m	(800 ft)	2.4 km	(1.5 mi)	6.3 km	(3.9 mi)
2190 2190	Oxygen difluoride Oxygen difluoride, compressed	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
2191 2191	Sulfuryl fluoride Sulphuryl fluoride	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	0.8 km	(0.5 mi)	2.3 km	(1.4 mi)
2192	Germane	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	275 m	(900 ft)	2.7 km	(1.7 mi)	6.6 km	(4.1 mi)
2194	Selenium hexafluoride	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	245 m	(800 ft)	2.3 km	(1.4 mi)	6.0 km	(3.7 mi)
2195	Tellurium hexafluoride	60 m	(200 ft)	0.6 km	(0.4 mi)	2.3 km	(1.4 mi)	365 m	(1200 ft)	3.5 km	(2.2 mi)	7.6 km	(4.7 mi)
2196	Tungsten hexafluoride	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	155 m	(500 ft)	1.3 km	(0.8 mi)	3.7 km	(2.3 mi)
2197	Hydrogen iodide, anhydrous	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	95 m	(300 ft)	0.8 km	(0.5 mi)	2.6 km	(1.6 mi)
2198 2198	Phosphorus pentafluoride Phosphorus pentafluoride, compressed	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	3.5 km	(2.2 mi)
2199	Phosphine	95 m	(300 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	490 m	(1600 ft)	1.8 km	(1.1 mi)	5.5 km	(3.4 mi)
2202	Hydrogen selenide, anhydrous	185 m	(600 ft)	1.8 km	(1.1 mi)	5.6 km	(3.5 mi)	915 m	(3000 ft)	10.8 km	(6.7 mi)	11.0+ km	(7.0+ mi)
2204 2204	Carbonyl sulfide Carbonyl sulphide	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	215 m	(700 ft)	1.9 km	(1.2 mi)	5.6 km	(3.5 mi)

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TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during-			
				DAY		NIGHT				DAY		NIGHT	
ID No.	NAME OF MATERIAL	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
2232 2232	Chloroacetaldehyde 2-Chloroethanal	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.6 km	(1.0 mi)
2334	Allylamine	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	95 m	(300 ft)	1.0 km	(0.6 mi)	2.4 km	(1.5 mi)
2337	Phenyl mercaptan	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.6 km	(0.4 mi)
2382 2382	1,2-Dimethylhydrazine Dimethylhydrazine, symmetrical	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.1 km	(0.7 mi)
2407	Isopropyl chloroformate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	0.8 km	(0.5 mi)	1.9 km	(1.2 mi)
2417 2417	Carbonyl fluoride Carbonyl fluoride, compressed	30 m	(100 ft)	0.2 km	(0.1 mi)	1.1 km	(0.7 mi)	125 m	(400 ft)	1.0 km	(0.6 mi)	3.1 km	(1.9 mi)
2418 2418	Sulfur tetrafluoride Sulphur tetrafluoride	60 m	(200 ft)	0.5 km	(0.3 mi)	1.9 km	(1.2 mi)	305 m	(1000 ft)	2.9 km	(1.8 mi)	6.9 km	(4.3 mi)
2420	Hexafluoroacetone	30 m	(100 ft)	0.3 km	(0.2 mi)	1.4 km	(0.9 mi)	365 m	(1200 ft)	3.7 km	(2.3 mi)	8.5 km	(5.3 mi)
2421	Nitrogen trioxide	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	155 m	(500 ft)	0.6 km	(0.4 mi)	2.1 km	(1.3 mi)
2438	Trimethylacetyl chloride	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.8 km	(0.5 mi)
2442	Trichloroacetyl chloride **(when spilled on land)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.4 km	(0.9 mi)
2442	Trichloroacetyl chloride **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)
2474	Thiophosgene	60 m	(200 ft)	0.6 km	(0.4 mi)	1.8 km	(1.1 mi)	275 m	(900 ft)	2.6 km	(1.6 mi)	5.0 km	(3.1 mi)
2477	Methyl isothiocyanate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.1 km	(0.7 mi)
2480	Methyl isocyanate	95 m	(300 ft)	0.8 km	(0.5 mi)	2.7 km	(1.7 mi)	490 m	(1600 ft)	4.8 km	(3.0 mi)	9.8 km	(6.1 mi)
2481	Ethyl isocyanate	215 m	(700 ft)	1.9 km	(1.2 mi)	4.3 km	(2.7 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)

2482	n-Propyl isocyanate	125 m	(400 ft)	1.1 km	(0.7 mi)	2.4 km	(1.5 mi)	765 m	(2500 ft)	6.3 km	(3.9 mi)	10.6 km	(6.6 mi)
2483	Isopropylisocyanate	185 m	(600 ft)	1.8 km	(1.1 mi)	3.9 km	(2.4 mi)	430 m	(1400 ft)	4.2 km	(2.6 mi)	7.4 km	(4.6 mi)
2484	tert-Butylisocyanate	125 m	(400 ft)	1.0 km	(0.6 mi)	2.4 km	(1.5 mi)	550 m	(1800 ft)	5.3 km	(3.3 mi)	10.3 km	(6.4 mi)
2485	n-Butylisocyanate	95 m	(300 ft)	0.8 km	(0.5 mi)	1.6 km	(1.0 mi)	335 m	(1100 ft)	3.1 km	(1.9 mi)	6.3 km	(3.9 mi)
2486	Isobutylisocyanate	60 m	(200 ft)	0.6 km	(0.4 mi)	1.4 km	(0.9 mi)	155 m	(500 ft)	1.6 km	(1.0 mi)	3.2 km	(2.0 mi)
2487	Phenylisocyanate	30 m	(100 ft)	0.3 km	(0.2 mi)	0.8 km	(0.5 mi)	155 m	(500 ft)	1.3 km	(0.8 mi)	2.6 km	(1.6 mi)
2488	Cyclohexylisocyanate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	0.8 km	(0.5 mi)	1.4 km	(0.9 mi)
2495	Iodine pentafluoride **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	3.1 km	(1.9 mi)
2521	Diketene, inhibited	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
2534	Methylchlorosilane	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	215 m	(700 ft)	2.1 km	(1.3 mi)	5.6 km	(3.5 mi)
2548	Chlorine pentafluoride	30 m	(100 ft)	0.3 km	(0.2 mi)	1.0 km	(0.6 mi)	365 m	(1200 ft)	3.7 km	(2.3 mi)	8.7 km	(5.4 mi)
2576	Phosphorus oxybromide, molten **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	0.6 km	(0.4 mi)	1.9 km	(1.2 mi)
2600	Carbon monoxide and Hydrogen mixture	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	125 m	(400 ft)	0.6 km	(0.4 mi)	1.8 km	(1.1 mi)
2600	Carbon monoxide and Hydrogen mixture, compressed												
2600	Hydrogen and Carbon monoxide mixture												
2600	Hydrogen and Carbon monoxide mixture, compressed												
2605	Methoxymethylisocyanate	60 m	(200 ft)	0.3 km	(0.2 mi)	0.8 km	(0.5 mi)	125 m	(400 ft)	1.3 km	(0.8 mi)	2.6 km	(1.6 mi)
2606	Methylorthosilicate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.6 km	(0.4 mi)
2644	Methyliodide	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.3 km	(0.2 mi)	1.0 km	(0.6 mi)
2646	Hexachlorocyclopentadiene	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)
2668	Chloroacetonitrile	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
2676	Stibine	30 m	(100 ft)	0.3 km	(0.2 mi)	1.6 km	(1.0 mi)	245 m	(800 ft)	2.3 km	(1.4 mi)	6.0 km	(3.7 mi)

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ID No.	NAME OF MATERIAL	SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during-			
				DAY		NIGHT				DAY		NIGHT	
		Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
2691	Phosphorus pentabromide **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	0.8 km	(0.5 mi)	2.4 km	(1.5 mi)
2692	Boron tribromide **(when spilled on land)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.4 km	(0.9 mi)
2692	Boron tribromide **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)
2740	n-Propyl chloroformate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.4 km	(0.9 mi)
2742	sec-Butyl chloroformate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.6 km	(0.4 mi)
2742	Isobutyl chloroformate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.3 km	(0.2 mi)	0.8 km	(0.5 mi)
2743	n-Butyl chloroformate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
2806	Lithium nitride **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	95 m	(300 ft)	0.8 km	(0.5 mi)	2.1 km	(1.3 mi)
2810 2810 2810 2810	Bis-(2-chloroethyl) ethylamine Bis-(2-chloroethyl) methylamine Bis-(2-chloroethyl) sulfide Bis-(2-chloroethyl) sulphide	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)
2810 2810	Buzz **(when used as a weapon)** BZ **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.9 km	(1.2 mi)
2810	CS **(when used as a weapon)**	60 m	(200 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	245 m	(800 ft)	2.6 km	(1.6 mi)	5.6 km	(3.5 mi)
2810	DC **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	245 m	(800 ft)	2.3 km	(1.4 mi)	5.3 km	(3.3 mi)
2810	O-Ethyl S-(2-diisopropylaminoethyl) methylphosphonothiolate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)

2810	Ethyl N,N-dimethylphosphoramidocyanidate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.0 km	(0.6 mi)
2810	GA **(when used as a weapon)**	30 m	(100 ft)	0.3 km	(0.2 mi)	0.6 km	(0.4 mi)	155 m	(500 ft)	1.6 km	(1.0 mi)	3.1 km	(1.9 mi)
2810	GB **(when used as a weapon)**	155 m	(500 ft)	1.6 km	(1.0 mi)	3.4 km	(2.1 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
2810	GD **(when used as a weapon)**	95 m	(300 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	765 m	(2500 ft)	6.8 km	(4.2 mi)	10.5 km	(6.5 mi)
2810	GF **(when used as a weapon)**	30 m	(100 ft)	0.3 km	(0.2 mi)	0.6 km	(0.4 mi)	245 m	(800 ft)	2.3 km	(1.4 mi)	5.1 km	(3.2 mi)
2810 2810	H **(when used as a weapon)** HD **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.1 km	(0.7 mi)
2810	HL **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	1.0 km	(0.6 mi)	1.8 km	(1.1 mi)
2810	HN-1 **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.3 km	(0.8 mi)
2810	HN-2 **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.1 km	(0.7 mi)
2810	HN-3 **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)
2810	Isopropyl methylphosphonofluoridate	125 m	(400 ft)	1.3 km	(0.8 mi)	2.3 km	(1.4 mi)	550 m	(1800 ft)	5.3 km	(3.3 mi)	8.7 km	(5.4 mi)
2810 2810	L (Lewisite) **(when used as a weapon)** Lewisite **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	1.0 km	(0.6 mi)	1.8 km	(1.1 mi)
2810	Mustard **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)
2810	Mustard Lewisite **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	1.0 km	(0.6 mi)	1.8 km	(1.1 mi)
2810	Pinacolyl methylphosphonofluoridate	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)	215 m	(700 ft)	2.1 km	(1.3 mi)	3.1 km	(1.9 mi)
2810 2810	Poisonous liquid, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper) Poisonous liquid, n.o.s. (Inhalation Hazard Zone A)	215 m	(700 ft)	1.9 km	(1.2 mi)	4.3 km	(2.7 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)

"+" means distance can be larger in certain atmospheric conditions

TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)			LARGE SPILLS (From a large package or from many small packages)		
		First **ISOLATE** in all Directions	Then **PROTECT** persons Downwind during-		First **ISOLATE** in all Directions	Then **PROTECT** persons Downwind during-	
ID No.	**NAME OF MATERIAL**	Meters (Feet)	**DAY** Kilometers (Miles)	**NIGHT** Kilometers (Miles)	Meters (Feet)	**DAY** Kilometers (Miles)	**NIGHT** Kilometers (Miles)
2810	Poisonous liquid, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.3 km (0.8 mi)	245 m (800 ft)	2.3 km (1.4 mi)	5.0 km (3.1 mi)
2810 2810	Poisonous liquid, organic, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper) Poisonous liquid, organic, n.o.s. (Inhalation Hazard Zone A)	215 m (700 ft)	1.9 km (1.2 mi)	4.3 km (2.7 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
2810	Poisonous liquid, organic, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	185 m (600 ft)	1.6 km (1.0 mi)	4.0 km (2.5 mi)
2810	Sarin **(when used as a weapon)**	155 m (500 ft)	1.6 km (1.0 mi)	3.4 km (2.1 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
2810	Soman **(when used as a weapon)**	95 m (300 ft)	0.8 km (0.5 mi)	1.8 km (1.1 mi)	765 m (2500 ft)	6.8 km (4.2 mi)	10.5 km (6.5 mi)
2810	Tabun **(when used as a weapon)**	30 m (100 ft)	0.3 km (0.2 mi)	0.6 km (0.4 mi)	155 m (500 ft)	1.6 km (1.0 mi)	3.1 km (1.9 mi)
2810	Thickened GD **(when used as a weapon)**	95 m (300 ft)	0.8 km (0.5 mi)	1.8 km (1.1 mi)	765 m (2500 ft)	6.8 km (4.2 mi)	10.5 km (6.5 mi)
2810 2810	Toxic liquid, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper) Toxic liquid, n.o.s. (Inhalation Hazard Zone A)	215 m (700 ft)	1.9 km (1.2 mi)	4.3 km (2.7 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
2810	Toxic liquid, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.3 km (0.8 mi)	245 m (800 ft)	2.3 km (1.4 mi)	5.0 km (3.1 mi)
2810 2810	Toxic liquid, organic, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper) Toxic liquid, organic, n.o.s. (Inhalation Hazard Zone A)	215 m (700 ft)	1.9 km (1.2 mi)	4.3 km (2.7 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)

2810	Toxic liquid, organic, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.0 km	(2.5 mi)
2810	Tris-(2-chloroethyl) amine	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)
2810	VX **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.0 km	(0.6 mi)
2811	CX **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	95 m	(300 ft)	1.0 km	(0.6 mi)	3.1 km	(1.9 mi)
2826	Ethyl chlorothioformate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
2845	Ethyl phosphonous dichloride, anhydrous	60 m	(200 ft)	0.5 km	(0.3 mi)	1.3 km	(0.8 mi)	155 m	(500 ft)	1.6 km	(1.0 mi)	3.4 km	(2.1 mi)
2845	Methyl phosphonous dichloride	60 m	(200 ft)	0.5 km	(0.3 mi)	1.3 km	(0.8 mi)	245 m	(800 ft)	2.3 km	(1.4 mi)	5.0 km	(3.1 mi)
2901	Bromine chloride	30 m	(100 ft)	0.3 km	(0.2 mi)	1.0 km	(0.6 mi)	155 m	(500 ft)	1.6 km	(1.0 mi)	4.0 km	(2.5 mi)
2927	Ethyl phosphonothioic dichloride, anhydrous	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)
2927	Ethyl phosphorodichloridate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)
2927 2927	Poisonous liquid, corrosive, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper) Poisonous liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)	215 m	(700 ft)	1.9 km	(1.2 mi)	4.3 km	(2.7 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
2927	Poisonous liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	245 m	(800 ft)	1.6 km	(1.0 mi)	5.0 km	(2.5 mi)
2927 2927	Toxic liquid, corrosive, organic, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper) Toxic liquid, corrosive, organic, n.o.s. (Inhalation Hazard Zone A)	215 m	(700 ft)	1.9 km	(1.2 mi)	4.3 km	(2.7 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
2927	Toxic liquid, corrosive, organic, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	245 m	(800 ft)	1.6 km	(1.0 mi)	5.0 km	(2.5 mi)
2929	Poisonous liquid, flammable, n.o.s. (when "Inhalation	155 m	(500 ft)	1.3 km	(0.8 mi)	3.4 km	(2.1 mi)	915 m	(3000 ft)	8.7 km	(5.4 mi)	11.0+ km	(7.0+ mi)

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		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during-			
				DAY		NIGHT				DAY		NIGHT	
ID No.	NAME OF MATERIAL	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
	Hazard" is on a package or shipping paper)												
2929	Poisonous liquid, flammable, n.o.s. (Inhalation Hazard Zone A)												
2929	Poisonous liquid, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	2.7 km	(1.7 mi)
2929	Poisonous liquid, flammable, organic, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper)	155 m	(500 ft)	1.3 km	(0.8 mi)	3.4 km	(2.1 mi)	915 m	(3000 ft)	8.7 km	(5.4 mi)	11.0+ km	(7.0+ mi)
2929	Poisonous liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone A)												
2929	Poisonous liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	2.7 km	(1.7 mi)
2929	Toxic liquid, flammable, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper)	155 m	(500 ft)	1.3 km	(0.8 mi)	3.4 km	(2.1 mi)	915 m	(3000 ft)	8.7 km	(5.4 mi)	11.0+ km	(7.0+ mi)
2929	Toxic liquid, flammable, n.o.s. (Inhalation Hazard Zone A)												
2929	Toxic liquid, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	2.7 km	(1.7 mi)
2929	Toxic liquid, flammable, organic, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper)	155 m	(500 ft)	1.3 km	(0.8 mi)	3.4 km	(2.1 mi)	915 m	(3000 ft)	8.7 km	(5.4 mi)	11.0+ km	(7.0+ mi)
2929	Toxic liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone A)												

2929	Toxic liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	2.7 km	(1.7 mi)
2977	Radioactive material, Uranium hexafluoride, fissile **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	95 m	(300 ft)	1.0 km	(0.6 mi)	3.1 km	(1.9 mi)
2977	Uranium hexafluoride, fissile containing more than 1% Uranium-235 **(when spilled in water)**												
2978	Radioactive material, Uranium hexafluoride, non fissile or fissile-excepted **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	95 m	(300 ft)	1.0 km	(0.6 mi)	3.1 km	(1.9 mi)
2978	Uranium hexafluoride, fissile-excepted **(when spilled in water)**												
2978	Uranium hexafluoride, low specific activity **(when spilled in water)**												
2978	Uranium hexafluoride, non-fissile **(when spilled in water)**												
2985	Chlorosilanes, flammable, corrosive, n.o.s. **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	2.9 km	(1.8 mi)
2985	Chlorosilanes, n.o.s. **(when spilled in water)**												
2986	Chlorosilanes, corrosive, flammable, n.o.s. **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	2.9 km	(1.8 mi)
2986	Chlorosilanes, n.o.s. **(when spilled in water)**												
2987	Chlorosilanes, corrosive, n.o.s. **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	2.9 km	(1.8 mi)
2987	Chlorosilanes, n.o.s. **(when spilled in water)**												

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				DAY		NIGHT				DAY		NIGHT	
ID No.	NAME OF MATERIAL	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
2988	Chlorosilanes, n.o.s. (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	2.9 km	(1.8 mi)
2988	Chlorosilanes, water-reactive, flammable, corrosive, n.o.s. (when spilled in water)												
3023	2-Methyl-2-hepthanethiol	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.1 km	(0.7 mi)
3023	tert-Octyl mercaptan												
3048	Aluminum phosphide pesticide (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	215 m	(700 ft)	1.9 km	(1.2 mi)	5.3 km	(3.3 mi)
3049	Metal alkyl halides, n.o.s. (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)
3049	Metal alkyl halides, water-reactive, n.o.s. (when spilled in water)												
3049	Metal aryl halides, n.o.s. (when spilled in water)												
3049	Metal aryl halides, water-reactive, n.o.s. (when spilled in water)												
3052	Aluminum alkyl halides (when spilled in water)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)
3057	Trifluoroacetyl chloride	30 m	(100 ft)	0.3 km	(0.2 mi)	1.4 km	(0.9 mi)	430 m	(1400 ft)	4.0 km	(2.5 mi)	8.5 km	(5.3 mi)
3079	Methacrylonitrile, inhibited	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.6 km	(1.0 mi)
3083	Perchloryl fluoride	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	215 m	(700 ft)	2.3 km	(1.4 mi)	5.6 km	(3.5 mi)

3122 3122	Poisonous liquid, oxidizing, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper) Poisonous liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)	155 m (500 ft)	1.3 km (0.8 mi)	3.4 km (2.1 mi)	915 m (3000 ft)	8.7 km (5.4 mi)	11.0+ km (7.0+ mi)
3122	Poisonous liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	125 m (400 ft)	1.1 km (0.7 mi)	2.7 km (1.7 mi)
3122 3122	Toxic liquid, oxidizing, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper) Toxic liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)	155 m (500 ft)	1.3 km (0.8 mi)	3.4 km (2.1 mi)	915 m (3000 ft)	8.7 km (5.4 mi)	11.0+ km (7.0+ mi)
3122	Toxic liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	125 m (400 ft)	1.1 km (0.7 mi)	2.7 km (1.7 mi)
3123 3123	Poisonous liquid, water-reactive, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper) Poisonous liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)	215 m (700 ft)	1.9 km (1.2 mi)	4.3 km (2.7 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
3123	Poisonous liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.3 km (0.8 mi)	245 m (800 ft)	2.3 km (1.4 mi)	5.0 km (3.1 mi)
3123 3123	Poisonous liquid, which in contact with water emits flammable gases, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper) Poisonous liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone A)	215 m (700 ft)	1.9 km (1.2 mi)	4.3 km (2.7 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
3123	Poisonous liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.3 km (0.8 mi)	245 m (800 ft)	2.3 km (1.4 mi)	5.0 km (3.1 mi)

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		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during-			
				DAY		NIGHT				DAY		NIGHT	
ID No.	NAME OF MATERIAL	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
3123	Toxic liquid, water-reactive, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper)	215 m	(700 ft)	1.9 km	(1.2 mi)	4.3 km	(2.7 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3123	Toxic liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)												
3123	Toxic liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.3 km	(0.8 mi)	245 m	(800 ft)	2.3 km	(1.4 mi)	5.0 km	(3.1 mi)
3123	Toxic liquid, which in contact with water emits flammable gases, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper)	215 m	(700 ft)	1.9 km	(1.2 mi)	4.3 km	(2.7 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3123	Toxic liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone A)												
3123	Toxic liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.3 km	(0.8 mi)	245 m	(800 ft)	2.3 km	(1.4 mi)	5.0 km	(3.1 mi)
3160	Liquefied gas, poisonous, flammable, n.o.s.	185 m	(600 ft)	1.8 km	(1.1 mi)	5.6 km	(3.5 mi)	915 m	(3000 ft)	10.8 km	(6.7 mi)	11.0+ km	(7.0+ mi)
3160	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)												
3160	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	305 m	(1000 ft)	3.1 km	(1.9 mi)	7.7 km	(4.8 mi)

3160	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	215 m	(700 ft)	2.1 km	(1.3 mi)	5.6 km	(3.5 mi)
3160	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
3160 3160	Liquefied gas, toxic, flammable, n.o.s. Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	185 m	(600 ft)	1.8 km	(1.1 mi)	5.6 km	(3.5 mi)	915 m	(3000 ft)	10.8 km	(6.7 mi)	11.0+ km	(7.0+ mi)
3160	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	305 m	(1000 ft)	3.1 km	(1.9 mi)	7.7 km	(4.8 mi)
3160	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	215 m	(700 ft)	2.1 km	(1.3 mi)	5.6 km	(3.5 mi)
3160	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
3162 3162	Liquefied gas, poisonous, n.o.s. Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3162	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	430 m	(1400 ft)	4.0 km	(2.5 mi)	9.8 km	(6.1 mi)
3162	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	215 m	(700 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)
3162	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
3162 3162	Liquefied gas, toxic, n.o.s. Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3162	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	430 m	(1400 ft)	4.0 km	(2.5 mi)	9.8 km	(6.1 mi)
3162	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	215 m	(700 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)

"+" means distance can be larger in certain atmospheric conditions

TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
3162	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
3246 3246	Methanesulfonyl chloride Methanesulphonyl chloride	95 m	(300 ft)	0.6 km	(0.4 mi)	2.4 km	(1.5 mi)	245 m	(800 ft)	2.3 km	(1.4 mi)	5.1 km	(3.2 mi)
3275	Nitriles, poisonous, flammable, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.6 km	(1.0 mi)
3275	Nitriles, toxic, flammable, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper)												
3276 3276	Nitriles, poisonous, n.o.s. Nitriles, toxic, n.o.s.	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.6 km	(1.0 mi)
3278	Organophosphorus compound, poisonous, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.3 km	(0.8 mi)	245 m	(800 ft)	2.3 km	(1.4 mi)	5.0 km	(3.1 mi)
3278	Organophosphorus compound, toxic, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper)												
3279	Organophosphorus compound, poisonous, flammable, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.3 km	(0.8 mi)	245 m	(800 ft)	2.3 km	(1.4 mi)	5.0 km	(3.1 mi)
3279	Organophosphorus compound, toxic, flammable, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper)												

3280	Organoarsenic compound, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper)	30 m (100 ft)	0.2 km (0.1 mi)	0.8 km (0.5 mi)	185 m (600 ft)	1.8 km (1.1 mi)	4.3 km (2.7 mi)
3281	Metal carbonyls, n.o.s.	60 m (200 ft)	0.6 km (0.4 mi)	2.1 km (1.3 mi)	215 m (700 ft)	2.1 km (1.3 mi)	4.3 km (2.7 mi)
3287 3287	Poisonous liquid, inorganic, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper) Poisonous liquid, inorganic, n.o.s. (Inhalation Hazard Zone A)	155 m (500 ft)	1.3 km (0.8 mi)	3.7 km (2.3 mi)	765 m (2500 ft)	6.6 km (4.1 mi)	10.6 km (6.6 mi)
3287	Poisonous liquid, inorganic, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.3 km (0.8 mi)	245 m (800 ft)	2.3 km (1.4 mi)	5.0 km (3.1 mi)
3287 3287	Toxic liquid, inorganic, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper) Toxic liquid, inorganic, n.o.s. (Inhalation Hazard Zone A)	155 m (500 ft)	1.3 km (0.8 mi)	3.7 km (2.3 mi)	765 m (2500 ft)	6.6 km (4.1 mi)	10.6 km (6.6 mi)
3287	Toxic liquid, inorganic, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.3 km (0.8 mi)	245 m (800 ft)	2.3 km (1.4 mi)	5.0 km (3.1 mi)
3289 3289	Poisonous liquid, corrosive, inorganic, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper) Poisonous liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone A)	95 m (300 ft)	0.6 km (0.4 mi)	1.8 km (1.1 mi)	400 m (1300 ft)	2.6 km (1.6 mi)	5.0 km (3.1 mi)
3289	Poisonous liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	185 m (600 ft)	1.6 km (1.0 mi)	4.0 km (2.5 mi)
3289 3289	Toxic liquid, corrosive, inorganic, n.o.s. (when "Inhalation Hazard" is on a package or shipping paper) Toxic liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone A)	95 m (300 ft)	0.6 km (0.4 mi)	1.8 km (1.1 mi)	400 m (1300 ft)	2.6 km (1.6 mi)	5.0 km (3.1 mi)

TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during-			
				DAY		NIGHT				DAY		NIGHT	
ID No.	NAME OF MATERIAL	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
3289	Toxic liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.0 km	(2.5 mi)
3294	Hydrogen cyanide, solution in alcohol, with not more than 45% Hydrogen cyanide (when "Inhalation Hazard" is on a package or shipping paper)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	215 m	(700 ft)	0.6 km	(0.4 mi)	1.9 km	(1.2 mi)
3300 3300	Carbon dioxide and Ethylene oxide mixture, with more than 87% Ethylene oxide Ethylene oxide and Carbon dioxide mixture, with more than 87% Ethylene oxide	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.8 km	(1.1 mi)
3303 3303	Compressed gas, poisonous, oxidizing, n.o.s. Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3303	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	335 m	(1100 ft)	3.4 km	(2.1 mi)	7.7 km	(4.8 mi)
3303	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	215 m	(700 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)
3303	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)

3303 3303	Compressed gas, toxic, oxidizing, n.o.s. Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3303	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	335 m	(1100 ft)	3.4 km	(2.1 mi)	7.7 km	(4.8 mi)
3303	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	215 m	(700 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)
3303	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
3304 3304	Compressed gas, poisonous, corrosive, n.o.s. Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3304	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	430 m	(1400 ft)	4.0 km	(2.5 mi)	9.8 km	(6.1 mi)
3304	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	185 m	(600 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)
3304	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
3304 3304	Compressed gas, toxic, corrosive, n.o.s. Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)

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		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during-			
				DAY		NIGHT				DAY		NIGHT	
ID No.	NAME OF MATERIAL	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
3304	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	430 m	(1400 ft)	4.0 km	(2.5 mi)	9.8 km	(6.1 mi)
3304	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	185 m	(600 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)
3304	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
3305 3305	Compressed gas, poisonous, flammable, corrosive, n.o.s. Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3305	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	430 m	(1400 ft)	4.0 km	(2.5 mi)	9.8 km	(6.1 mi)
3305	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	185 m	(600 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)
3305	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
3305 3305	Compressed gas, toxic, flammable, corrosive, n.o.s. Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)

3305	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	430 m	(1400 ft)	4.0 km	(2.5 mi)	9.8 km	(6.1 mi)
3305	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	185 m	(600 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)
3305	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
3306 3306	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3306	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	335 m	(1100 ft)	3.4 km	(2.1 mi)	7.7 km	(4.8 mi)
3306	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	185 m	(600 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)
3306	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
3306 3306	Compressed gas, toxic, oxidizing, corrosive, n.o.s. Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3306	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	335 m	(1100 ft)	3.4 km	(2.1 mi)	7.7 km	(4.8 mi)
3306	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	185 m	(600 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)

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		First ISOLATE in all Directions	Then PROTECT persons Downwind during-		First ISOLATE in all Directions	Then PROTECT persons Downwind during-	
ID No.	NAME OF MATERIAL	Meters (Feet)	DAY Kilometers (Miles)	NIGHT Kilometers (Miles)	Meters (Feet)	DAY Kilometers (Miles)	NIGHT Kilometers (Miles)
3306	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	185 m (600 ft)	1.6 km (1.0 mi)	4.3 km (2.7 mi)
3307 3307	Liquefied gas, poisonous, oxidizing, n.o.s. Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)	430 m (1400 ft)	4.2 km (2.6 mi)	8.4 km (5.2 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
3307	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	335 m (1100 ft)	3.4 km (2.1 mi)	7.7 km (4.8 mi)
3307	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	215 m (700 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)
3307	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	185 m (600 ft)	1.6 km (1.0 mi)	4.3 km (2.7 mi)
3307 3307	Liquefied gas, toxic, oxidizing, n.o.s. Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)	430 m (1400 ft)	4.2 km (2.6 mi)	8.4 km (5.2 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
3307	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	335 m (1100 ft)	3.4 km (2.1 mi)	7.7 km (4.8 mi)
3307	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	215 m (700 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)
3307	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	185 m (600 ft)	1.6 km (1.0 mi)	4.3 km (2.7 mi)

3308 3308	Liquefied gas, poisonous, corrosive, n.o.s. Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)	430 m (1400 ft)	4.2 km (2.6 mi)	8.4 km (5.2 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
3308	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	430 m (1400 ft)	4.0 km (2.5 mi)	9.8 km (6.1 mi)
3308	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	185 m (600 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)
3308	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	185 m (600 ft)	1.6 km (1.0 mi)	4.3 km (2.7 mi)
3308 3308	Liquefied gas, toxic, corrosive, n.o.s. Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)	430 m (1400 ft)	4.2 km (2.6 mi)	8.4 km (5.2 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
3308	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	430 m (1400 ft)	4.0 km (2.5 mi)	9.8 km (6.1 mi)
3308	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	185 m (600 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)
3308	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	185 m (600 ft)	1.6 km (1.0 mi)	4.3 km (2.7 mi)
3309 3309	Liquefied gas, poisonous, flammable, corrosive, n.o.s. Liquefied gas, poisonous, flammable, corrosive, n.o s. (Inhalation Hazard Zone A)	430 m (1400 ft)	4.2 km (2.6 mi)	8.4 km (5.2 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
3309	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	430 m (1400 ft)	4.0 km (2.5 mi)	9.8 km (6.1 mi)
3309	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	185 m (600 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)

"+" means distance can be larger in certain atmospheric conditions

TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during-			
				DAY		NIGHT				DAY		NIGHT	
ID No.	NAME OF MATERIAL	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
3309	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
3309 3309	Liquefied gas, toxic, flammable, corrosive, n.o.s. Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3309	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	430 m	(1400 ft)	4.0 km	(2.5 mi)	9.8 km	(6.1 mi)
3309	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	185 m	(600 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)
3309	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
3310 3310	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3310	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	335 m	(1100 ft)	3.4 km	(2.1 mi)	7.7 km	(4.8 mi)
3310	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	185 m	(600 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)

3310	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
3310 3310	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3310	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	335 m	(1100 ft)	3.4 km	(2.1 mi)	7.7 km	(4.8 mi)
3310	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	185 m	(600 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)
3310	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
3318	Ammonia solution, with more than 50% Ammonia	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.1 km	(0.7 mi)
3355 3355	Insecticide gas, poisonous, flammable, n.o.s Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3355	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)	430 m	(1400 ft)	4.0 km	(2.5 mi)	9.8 km	(6.1 mi)
3355	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	215 m	(700 ft)	3.1 km	(1.9 mi)	7.2 km	(4.5 mi)
3355	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)

"+" means distance can be larger in certain atmospheric conditions

TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

ID No.	NAME OF MATERIAL	SMALL SPILLS (From a small package or small leak from a large package)			LARGE SPILLS (From a large package or from many small packages)		
		First ISOLATE in all Directions	Then PROTECT persons Downwind during-		First ISOLATE in all Directions	Then PROTECT persons Downwind during-	
		Meters (Feet)	DAY Kilometers (Miles)	NIGHT Kilometers (Miles)	Meters (Feet)	DAY Kilometers (Miles)	NIGHT Kilometers (Miles)
3355 3355	Insecticide gas, toxic, flammable, n.o.s Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	430 m (1400 ft)	4.2 km (2.6 mi)	8.4 km (5.2 mi)	915 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
3355	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	430 m (1400 ft)	4.0 km (2.5 mi)	9.8 km (6.1 mi)
3355	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	215 m (700 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)
3355	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	185 m (600 ft)	1.6 km (1.0 mi)	4.3 km (2.7 mi)
9191	Chlorine dioxide, hydrate, frozen **(when spilled in water)**	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)
9192	Fluorine, refrigerated liquid (cryogenic liquid)	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)	185 m (600 ft)	1.4 km (0.9 mi)	4.0 km (2.5 mi)
9202	Carbon monoxide, refrigerated liquid (cryogenic liquid)	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	125 m (400 ft)	0.6 km (0.4 mi)	1.8 km (1.1 mi)
9206	Methyl phosphonic dichloride	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)
9263	Chloropivaloyl chloride	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.5 km (0.3 mi)
9264	3,5-Dichloro-2,4,6-trifluoropyridine	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.5 km (0.3 mi)
9269	Trimethoxysilane	30 m (100 ft)	0.3 km (0.2 mi)	1.0 km (0.6 mi)	215 m (700 ft)	2.1 km (1.3 mi)	4.2 km (2.6 mi)

"+" means distance can be larger in certain atmospheric conditions

See Next Page for Table of Water-Reactive Materials Which Produce Toxic Gases

TABLE OF WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES

Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH) Gas(es) *When Spilled in Water*

ID No.	Guide No.	Name of Material	TIH Gas(es) Produced	
1162	151	Dimethyldichlorosilane	HCl	
1242	139	Methyldichlorosilane	HCl	
1250	155	Methyltrichlorosilane	HCl	
1295	139	Trichlorosilane	HCl	
1298	155	Trimethylchlorosilane	HCl	
1340	139	Phosphorus pentasulfide, free from yellow and white Phosphorus	H_2S	
1340	139	Phosphorus pentasulphide, free from yellow and white Phosphorus	H_2S	
1360	139	Calcium phosphide	PH_3	
1384	135	Sodium dithionite	H_2S	SO_2
1384	135	Sodium hydrosulfite	H_2S	SO_2
1384	135	Sodium hydrosulphite	H_2S	SO_2
1397	139	Aluminum phosphide	PH_3	
1412	139	Lithium amide	NH_3	
1419	139	Magnesium aluminum phosphide	PH_3	
1432	139	Sodium phosphide	PH_3	
1433	139	Stannic phosphides	PH_3	
1541	155	Acetone cyanohydrin, stabilized	HCN	
1680	157	Potassium cyanide	HCN	
1689	157	Sodium cyanide	HCN	
1714	139	Zinc phosphide	PH_3	
1716	156	Acetyl bromide	HBr	
1717	132	Acetyl chloride	HCl	
1724	155	Allyl trichlorosilane, stabilized	HCl	
1725	137	Aluminum bromide, anhydrous	HBr	

Chemical Symbols for TIH Gases:

Br_2	Bromine	HF	Hydrogen fluoride	PH_3	Phosphine
Cl_2	Chlorine	HI	Hydrogen iodide	SO_2	Sulfur dioxide
HBr	Hydrogen bromide	H_2S	Hydrogen sulfide	SO_2	Sulphur dioxide
HCl	Hydrogen chloride	H_2S	Hydrogen sulphide	SO_3	Sulfur trioxide
HCN	Hydrogen cyanide	NH_3	Ammonia	SO_3	Sulphur trioxide

Use this list only when material is spilled in water.

TABLE OF WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES

Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH) Gas(es) *When Spilled in Water*

ID No.	Guide No.	Name of Material	TIH Gas(es) Produced		
1726	137	Aluminum chloride, anhydrous	HCl		
1728	155	Amyltrichlorosilane	HCl		
1732	157	Antimony pentafluoride	HF		
1736	137	Benzoyl chloride	HCl		
1745	144	Bromine pentafluoride	HF	HBr	Br_2
1746	144	Bromine trifluoride	HF	HBr	Br_2
1747	155	Butyltrichlorosilane	HCl		
1752	156	Chloroacetyl chloride	HCl		
1754	137	Chlorosulfonic acid	HCl		
1754	137	Chlorosulfonic acid and Sulfur trioxide mixture	HCl		
1754	137	Chlorosulphonic acid	HCl		
1754	137	Chlorosulphonic acid and Sulphur trioxide mixture	HCl		
1754	137	Sulfur trioxide and Chlorosulfonic acid	HCl		
1754	137	Sulphur trioxide and Chlorosulphonic acid	HCl		
1758	137	Chromium oxychloride	HCl		
1777	137	Fluorosulfonic acid	HF		
1777	137	Fluorosulphonic acid	HF		
1801	156	Octyltrichlorosilane	HCl		
1806	137	Phosphorus pentachloride	HCl		
1809	137	Phosphorus trichloride	HCl		
1810	137	Phosphorus oxychloride	HCl		
1818	157	Silicon tetrachloride	HCl		
1828	137	Sulfur chlorides	HCl	SO_2	H_2S
1828	137	Sulphur chlorides	HCl	SO_2	H_2S

Chemical Symbols for TIH Gases:

Br_2	Bromine	HF	Hydrogen fluoride	PH_3	Phosphine
Cl_2	Chlorine	HI	Hydrogen iodide	SO_2	Sulfur dioxide
HBr	Hydrogen bromide	H_2S	Hydrogen sulfide	SO_2	Sulphur dioxide
HCl	Hydrogen chloride	H_2S	Hydrogen sulphide	SO_3	Sulfur trioxide
HCN	Hydrogen cyanide	NH_3	Ammonia	SO_3	Sulphur trioxide

Use this list only when material is spilled in water.

TABLE OF WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES

Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH) Gas(es) *When Spilled in Water*

ID No.	Guide No.	Name of Material	TIH Gas(es) Produced	
1834	137	Sulfuryl chloride	HCl	SO_3
1834	137	Sulphuryl chloride	HCl	SO_3
1836	137	Thionyl chloride	HCl	SO_2
1838	137	Titanium tetrachloride	HCl	
1898	156	Acetyl iodide	HI	
1923	135	Calcium dithionite	H_2S	SO_2
1923	135	Calcium hydrosulfite	H_2S	SO_2
1923	135	Calcium hydrosulphite	H_2S	SO_2
1939	137	Phosphorus oxybromide	HBr	
1939	137	Phosphorus oxybromide, solid	HBr	
2004	135	Magnesium diamide	NH_3	
2011	139	Magnesium phosphide	PH_3	
2012	139	Potassium phosphide	PH_3	
2013	139	Strontium phosphide	PH_3	
2442	156	Trichloroacetyl chloride	HCl	
2495	144	Iodine pentafluoride	HF	
2576	137	Phosphorus oxybromide, molten	HBr	
2691	137	Phosphorus pentabromide	HBr	
2692	157	Boron tribromide	HBr	
2806	138	Lithium nitride	NH_3	
2977	166	Radioactive material, Uranium hexafluoride, fissile	HF	
2977	166	Uranium hexafluoride, fissile containing more than 1% Uranium-235	HF	
2978	166	Radioactive material, Uranium hexafluoride, non-fissile or fissile excepted	HF	

Chemical Symbols for TIH Gases:

Br_2	Bromine	HF	Hydrogen fluoride	PH_3	Phosphine
Cl_2	Chlorine	HI	Hydrogen iodide	SO_2	Sulfur dioxide
HBr	Hydrogen bromide	H_2S	Hydrogen sulfide	SO_2	Sulphur dioxide
HCl	Hydrogen chloride	H_2S	Hydrogen sulphide	SO_3	Sulfur trioxide
HCN	Hydrogen cyanide	NH_3	Ammonia	SO_3	Sulphur trioxide

Use this list only when material is spilled in water.

TABLE OF WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES

Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH) Gas(es) *When Spilled in Water*

ID No.	Guide No.	Name of Material	TIH Gas(es) Produced
2978	166	Uranium hexafluoride, fissile excepted	HF
2978	166	Uranium hexafluoride, low specific activity	HF
2978	166	Uranium hexafluoride, non-fissile	HF
2985	155	Chlorosilanes, flammable, corrosive, n.o.s.	HCl
2985	155	Chlorosilanes, n.o.s.	HCl
2986	155	Chlorosilanes, corrosive, flammable, n.o.s.	HCl
2986	155	Chlorosilanes, n.o.s.	HCl
2987	156	Chlorosilanes, corrosive, n.o.s.	HCl
2987	156	Chlorosilanes, n.o.s.	HCl
2988	139	Chlorosilanes, n.o.s.	HCl
2988	139	Chlorosilanes, water-reactive, flammable, corrosive, n.o.s.	HCl
3048	157	Aluminum phosphide pesticide	PH_3
3049	138	Metal alkyl halides, n.o.s.	HCl
3049	138	Metal alkyl halides, water-reactive, n.o.s.	HCl
3049	138	Metal aryl halides, n.o.s.	HCl
3049	138	Metal aryl halides, water-reactive, n.o.s.	HCl
3052	135	Aluminum alkyl halides	HCl
9191	143	Chlorine dioxide, hydrate, frozen	Cl_2

Chemical Symbols for TIH Gases:

Br_2	Bromine
Cl_2	Chlorine
HBr	Hydrogen bromide
HCl	Hydrogen chloride
HCN	Hydrogen cyanide
HF	Hydrogen fluoride
HI	Hydrogen iodide
H_2S	Hydrogen sulfide
H_2S	Hydrogen sulphide
NH_3	Ammonia
PH_3	Phosphine
SO_2	Sulfur dioxide
SO_2	Sulphur dioxide
SO_3	Sulfur trioxide
SO_3	Sulphur trioxide

Use this list only when material is spilled in water.

PROTECTIVE CLOTHING

Street Clothing and Work Uniforms. These garments, such as uniforms worn by police and emergency medical services personnel, provide almost no protection from the harmful effects of dangerous goods.

Structural Fire Fighters' Protective Clothing (SFPC). This category of clothing, often called turnout or bunker gear, means the protective clothing normally worn by fire fighters during structural fire fighting operations. It includes a helmet, coat, pants, boots, gloves and a hood to cover parts of the head not protected by the helmet and facepiece. This clothing must be used with full-facepiece positive pressure self-contained breathing apparatus (SCBA). This protective clothing should, at a minimum, meet the OSHA Fire Brigades Standard (29 CFR 1910.156). Structural fire fighters' protective clothing provides limited protection from heat and cold, but may not provide adequate protection from the harmful vapors or liquids that are encountered during dangerous goods incidents. Each guide includes a statement about the use of SFPC in incidents involving those materials referenced by that guide. Some guides state that SFPC provides limited protection. In those cases, the responder wearing SFPC and SCBA may be able to perform an expedient, that is quick "in-and-out", operation. However, this type of operation can place the responder at risk of exposure, injury or death. The incident commander makes the decision to perform this operation only if an overriding benefit can be gained (i.e., perform an immediate rescue, turn off a valve to control a leak, etc.). The coverall-type protective clothing customarily worn to fight fires in forests or wildlands is **not** SFPC and is not recommended nor referred to elsewhere in this guidebook.

Positive Pressure Self-Contained Breathing Apparatus (SCBA). This apparatus provides a constant, positive pressure flow of air within the facepiece, even if one inhales deeply while doing heavy work. Use apparatus certified by NIOSH and the Department of Labor/Mine Safety and Health Administration in accordance with 42 CFR Part 84. Use it in accordance with the requirements for respiratory protection specified in OSHA 29 CFR 1910.134 (Respiratory Protection) and/or 29 CFR 1910.156 (f) (Fire Brigades Standard.) Chemical-cartridge respirators or other filtering masks are not acceptable substitutes for positive pressure self-contained breathing apparatus. Demand-type SCBA does not meet the OSHA 29 CFR 1910.156 (f)(1)(i) Fire Brigade Standard.

Chemical Protective Clothing and Equipment. Safe use of this type of protective clothing and equipment requires specific skills developed through training and experience. It is generally not available to, or used by, first responders. This type of special clothing may protect against one chemical, yet be readily permeated by chemicals for which it was not designed. Therefore, protective clothing should not be used unless it is compatible with the released material. This type of special clothing offers little or no protection against heat and/or cold. Examples of this type of equipment have been described as (1) Vapor Protective Suits (NFPA 1991), also known as Totally-Encapsulating Chemical Protective (TECP) Suits or Level A* protection (OSHA 29 CFR 1910.120, Appendix A & B), and (2) Liquid-Splash Protective Suits (NFPA 1992 & 1993), also known as Level B* or C* protection (OSHA 29

CFR 1910.120, Appendix A & B). No single protective clothing material will protect you from all dangerous goods. Do not assume any protective clothing is resistant to cold and/or heat or flame exposure unless it is so certified by the manufacturer. (NFPA 1991 5-3 Flammability Resistance Test and 5-6 Cold Temperature Performance Test.)

* Consult glossary for additional protection levels under the heading “Protective Clothing”.

FIRE AND SPILL CONTROL

FIRE CONTROL

Water is the most common and generally most available fire extinguishing agent. Exercise caution in selecting a fire extinguishing method since there are many factors to be considered in an incident. Water may be ineffective in fighting fires involving some materials; its effectiveness depends greatly on the method of application.

Spill fires involving flammable liquids are generally controlled by applying a fire fighting foam to the surface of the burning material. Fighting flammable liquid fires requires foam concentrate which is chemically compatible with the burning material, correct mixing of the foam concentrate with water and air, and careful application and maintenance of the foam blanket. There are two general types of fire fighting foam: regular and alcohol-resistant. Examples of regular foam are protein-base, fluoroprotein, and aqueous film forming foam (AFFF). Some flammable liquids, including many petroleum products, can be controlled by applying regular foam. Other flammable liquids, including polar solvents (flammable liquids which are water soluble) such as alcohols and ketones, have different chemical properties. A fire involving these materials cannot be easily controlled with regular foam and requires application of alcohol-resistant foam. Polar-solvent fires may be difficult to control and require a higher foam application rate than other flammable liquid fires (see NFPA/ANSI Standards 11 and 11A for further information). Refer to the appropriate guide to determine which type of foam is recommended. Although it is impossible to make specific recommendations for flammable liquids which have subsidiary corrosive or toxic hazards, alcohol-resistant foam may be effective for many of these materials. The emergency response telephone number on the shipping document, or the appropriate emergency response agency, should be contacted as soon as possible for guidance on the proper fire extinguishing agent to use. The final selection of the agent and method depends on many factors such as incident location, exposure hazards, size of the fire, environmental concerns, as well as the availability of extinguishing agents and equipment at the scene.

WATER REACTIVE MATERIALS

Water is sometimes used to flush spills and to reduce or direct vapors in spill situations. Some of the materials covered by the guidebook can react violently or even explosively with water. In these cases, consider letting the fire burn or leaving the spill alone (except to prevent its spreading by diking) until additional technical advice can be obtained. The applicable guides clearly warn you of these potentially dangerous reactions. These materials require technical advice since

(1) water getting inside a ruptured or leaking container may cause an explosion;
(2) water may be needed to cool adjoining containers to prevent their rupturing (exploding) or further spread of the fires;
(3) water may be effective in mitigating an incident involving a water-reactive material only if it can be applied at a sufficient flooding rate for an extended period; and

(4) the products from the reaction with water may be more toxic, corrosive, or otherwise more undesirable than the product of the fire without water applied.

When responding to an incident involving water-reactive chemicals, take into account the existing conditions such as wind, precipitation, location and accessibility to the incident, as well as the availability of the agents to control the fire or spill. Because there are variables to consider, the decision to use water on fires or spills involving water-reactive materials should be based on information from an authoritative source; for example, a producer of the material, who can be contacted through the emergency response telephone number or the appropriate emergency response agency.

VAPOR CONTROL

Limiting the amount of vapor released from a pool of flammable or corrosive liquids is an operational concern. It requires the use of proper protective clothing, specialized equipment, appropriate chemical agents, and skilled personnel. Before engaging in vapor control, get advice from an authoritative source as to the proper tactics.

There are several ways to minimize the amount of vapors escaping from pools of spilled liquids, such as special foams, adsorbing agents, absorbing agents, and neutralizing agents. To be effective, these vapor control methods must be selected for the specific material involved and performed in a manner that will mitigate, not worsen, the incident.

Where specific materials are known, such as at manufacturing or storage facilities, it is desirable for the dangerous goods response team to prearrange with the facility operators to select and stockpile these control agents in advance of a spill. In the field, first responders may not have the most effective vapor control agent for the material available. They are likely to have only water and only one type of fire fighting foam on their vehicles. If the available foam is inappropriate for use, they are likely to use water spray. Because the water is being used to form a vapor seal, care must be taken not to churn or further spread the spill during application. Vapors that do not react with water may be directed away from the site using the air currents surrounding the water spray. Before using water spray or other methods to safely control vapor emission or to suppress ignition, obtain technical advice, based on specific chemical name identification.

CRIMINAL/TERRORIST USE OF CHEMICAL/BIOLOGICAL AGENTS

The following is intended to supply information to first responders for use in making a preliminary assessment of a situation that they suspect involves criminal/terrorist use of chemical and/or biological (CB) agents. To aid in the assessment, a list of observable indicators of the use and/or presence of a CB agent is provided in the following paragraphs.

DIFFERENCES BETWEEN A CHEMICAL AND A BIOLOGICAL AGENT

Chemical and biological agents can be dispersed in the air we breathe, the water we drink, or on surfaces we physically contact. Dispersion methods may be as simple as opening a container, using conventional (garden) spray devices, or as elaborate as detonating an improvised explosive device.

Chemical Incidents are characterized by the rapid onset of medical symptoms (minutes to hours) and easily observed signatures (colored residue, dead foliage, pungent odor, dead insects and animals).

Biological Incidents are characterized by the onset of symptoms in hours to days. Typically, there will be no characteristic signatures because biological agents are usually odorless and colorless. Because of the delayed onset of symptoms in a biological incident, the area affected may be greater due to the movement of infected individuals.

INDICATORS OF A POSSIBLE CHEMICAL INCIDENT

Dead animals/birds/fish	Not just an occasional road kill, but numerous animals (wild and domestic, small and large), birds, and fish in the same area.
Lack of insect life	If normal insect activity (ground, air, and/or water) is missing, check the ground/water surface/shore line for dead insects. If near water, check for dead fish/aquatic birds.
Unexplained odors	Smells may range from fruity to flowery to sharp/pungent to garlic/ horseradish-like to bitter almonds/peach kernels to new mown hay. It is important to note that the particular odor is completely out of character with its surroundings.
Unusual numbers of dying or sick people (mass casualties)	Health problems including nausea, disorientation, difficulty in breathing, convulsions, localized sweating, conjunctivitis (reddening of eyes/nerve agent symptoms), erythema (reddening of skin/vesicant symptoms) and death.
Pattern of casualties	Casualties will likely be distributed downwind, or if indoors, by the air ventilation system.

INDICATORS OF A POSSIBLE CHEMICAL INCIDENT (Continued)

Blisters/rashes	Numerous individuals experiencing unexplained water-like blisters, weals (like bee stings), and/or rashes.
Illness in confined area	Different casualty rates for people working indoors versus outdoors dependent on where the agent was released.
Unusual liquid droplets	Numerous surfaces exhibit oily droplets/film; numerous water surfaces have an oily film. (No recent rain.)
Different looking areas	Not just a patch of dead weeds, but trees, shrubs, bushes, food crops, and/or lawns that are dead, discolored, or withered. (No current drought.)
Low-lying clouds	Low-lying cloud/fog-like condition that is not consistent with its surroundings.
Unusual metal debris	Unexplained bomb/munitions-like material, especially if it contains a liquid.

INDICATORS OF A POSSIBLE BIOLOGICAL INCIDENT

Unusual numbers of sick or dying people or animals	Any number of symptoms may occur. Casualties may occur hours to days after an incident has occurred. The time required before symptoms are observed is dependent on the agent used.
Unscheduled and unusual spray being disseminated	Especially if outdoors during periods of darkness.
Abandoned spray devices	Devices may not have distinct odors.

PERSONAL SAFETY CONSIDERATIONS

When approaching a scene that may involve CB agents, the most critical consideration is the safety of oneself and other responders. Protective clothing and respiratory protection of appropriate level of safety must be used. Be aware that the presence and identification of CB agents may not be verifiable, especially in the case of biological agents. The following actions/measures to be considered are applicable to either a chemical or biological incident. The guidance is general in nature, not all encompassing, and its applicability should be evaluated on a case-by-case basis.

Approach and response strategies. Protect yourself and use a safe approach (minimize any exposure time, maximize the distance between you and the item that is likely to harm you, use cover as protection and wear appropriate personal protective equipment and respiratory protection). Identify and estimate the hazard by using indicators as provided above. Isolate the area and secure the scene; potentially contaminated people should be isolated and decontaminated as soon as possible. In the event of a chemical incident, the fading of chemical odors is not necessarily an indication of reduced vapor concentrations. Some chemicals deaden the senses giving the false perception that the chemical is no longer present.

Decontamination measures. Emergency responders should follow standard decontamination procedures (flush-strip-flush). Mass casualty decontamination should begin as soon as possible by stripping (all clothing) and flushing (soap and water). If biological agents are involved or suspected, careful washing and use of a brush are more effective. If chemical agents are suspected, the most important and effective decontamination will be that done within the first one or two minutes. If possible, further decontamination should be performed using a 0.5% hypochlorite solution (1 part household bleach mixed with 9 parts water). If biological agents are suspected, a contact time of 10 to 15 minutes should be allowed before rinsing. The solution can be used on soft tissue wounds, but must not be used in eyes or open wounds of the abdomen, chest, brain, or spine. For further information contact the agencies listed in this guidebook.

NOTE: The above information was developed by the Department of National Defence (Canada) and the U.S. Department of the Army, Edgewood Arsenal.

Glossary

Alcohol resistant foam	A foam that is resistant to “polar” chemicals such as ketones and esters which may break down other types of foam.
Biological agents	Living organisms that cause disease, sickness and mortality in humans. Anthrax and Ebola are examples of biological agents. **Refer to Guide 158**.
Blister agents (vesicants)	Substances that cause blistering of the skin. Exposure is through liquid or vapor contact with any exposed tissue (eyes, skin, lungs). Mustard (H), Distilled Mustard (HD), Nitrogen Mustard (HN) and Lewisite (L) are blister agents. **Symptoms:** Red eyes, skin irritation, burning of skin, blisters, upper respiratory damage, cough, hoarseness.
Blood agents	Substances that injure a person by interfering with cell respiration (the exchange of oxygen and carbon dioxide between blood and tissues). Hydrogen cyanide (AC) and Cyanogen chloride (CK) are blood agents. **Symptoms:** Respiratory distress, headache, unresponsiveness, seizures, coma.
Burn	Refers to either a chemical or thermal burn, the former may be caused by corrosive substances and the latter by liquefied cryogenic gases, hot molten substances, or flames.
Choking agents	Substances that cause physical injury to the lungs. Exposure is through inhalation. In extreme cases, membranes swell and lungs become filled with liquid (pulmonary edema). Death results from lack of oxygen; hence, the victim is “choked”. Phosgene (CG) is a choking agent. **Symptoms:** irritation to eyes/nose/throat, respiratory distress, nausea and vomiting, burning of exposed skin.
CO_2	Carbon dioxide gas.
Cold zone	Area where the command post and support functions that are necessary to control the incident are located. This is also referred to as the clean zone, green zone or support zone in other documents. (EPA Standard Operating Safety Guidelines, OSHA 29 CFR 1910.120, NFPA 472)

Glossary

Combustible liquid	Liquids which have a flash point greater than 60.5°C (141°F) and below 93°C (200°F). U.S. regulations permit a flammable liquid with a flash point between 38°C (100°F) and 60.5°C (141°F) to be reclassed as a combustible liquid.
Compatibility Group	Letters identify explosives that are deemed to be compatible. Class 1 materials are considered to be "compatible" if they can be transported together without significantly increasing either the probability of an incident or, for a given quantity, the magnitude of the effects of such an incident. A Substances which are expected to mass detonate very soon after fire reaches them. B Articles which are expected to mass detonate very soon after fire reaches them. C Substances or articles which may be readily ignited and burn violently without necessarily exploding. D Substances or articles which may mass detonate (with blast and/or fragment hazard) when exposed to fire. E&F Articles which may mass detonate in a fire. G Substances and articles which may mass explode and give off smoke or toxic gases. H Articles which in a fire may eject hazardous projectiles and dense white smoke. J Articles which may mass explode. K Articles which in a fire may eject hazardous projectiles and toxic gases. L Substances and articles which present a special risk and could be activated by exposure to air or water. N Articles which contain only extremely insensitive detonating substances and demonstrate a negligible probability of accidental ignition or propagation. S Packaged substances or articles which, if accidentally initiated, produce effects that are usually confined to the immediate vicinity.

Glossary

Control zones	Designated areas at dangerous goods incidents, based on safety and the degree of hazard. Many terms are used to describe control zones; however, in this guidebook, these zones are defined as the hot/exclusion/restricted zone, warm/contamination reduction/limited access zone, and cold/support/clean zone. (EPA Standard Operating Safety Guidelines, OSHA 29 CFR 1910.120, NFPA 472)
Cryogenic liquid	A refrigerated, liquefied gas that has a boiling point colder than -90°C (-130°F) at atmospheric pressure.
Dangerous Water Reactive Material	Produces significant toxic gas when it comes in contact with water.
Decomposition products	Products of a chemical or thermal break-down of a substance.
Decontamination	The removal of dangerous goods from personnel and equipment to the extent necessary to prevent potential adverse health effects. Always avoid direct or indirect contact with dangerous goods; however, if contact occurs, personnel should be decontaminated as soon as possible. Since the methods used to decontaminate personnel and equipment differ from one chemical to another, contact the chemical manufacturer, through the agencies listed on the inside back cover, to determine the appropriate procedure. Contaminated clothing and equipment should be removed after use and stored in a controlled area (warm/contamination reduction/limited access zone) until cleanup procedures can be initiated. In some cases, protective clothing and equipment cannot be decontaminated and must be disposed of in a proper manner.
Dry chemical	A preparation designed for fighting fires involving flammable liquids, pyrophoric substances and electrical equipment. Common types contain sodium bicarbonate or potassium bicarbonate.
Edema	The accumulation of an excessive amount of watery fluid in cells and tissues. Pulmonary edema is an excessive buildup of water in the lungs, for instance, after inhalation of a gas that is corrosive to lung tissue.
Flammable liquid	A liquid that has a flash point of 60.5°C (141°F) or lower.
Flash point	Lowest temperature at which a liquid or solid gives off vapor in such a concentration that, when the vapor combines with air near the surface of the liquid or solid, a flammable mixture is formed. Hence, the lower the flash point, the more flammable the material.

Glossary

Hazard zones (Inhalation Hazard Zones)	**HAZARD ZONE A:** LC50 of less than or equal to 200 ppm, **HAZARD ZONE B:** LC50 greater than 200 ppm and less than or equal to 1000 ppm, **HAZARD ZONE C:** LC50 greater than 1000 ppm and less than or equal to 3000 ppm, **HAZARD ZONE D:** LC50 greater than 3000 ppm and less than or equal to 5000 ppm.
Hot zone	Area immediately surrounding a dangerous goods incident which extends far enough to prevent adverse effects from released dangerous goods to personnel outside the zone. This zone is also referred to as exclusion zone, red zone or restricted zone in other documents. (EPA Standard Operating Safety Guidelines, OSHA 29 CFR 1910.120, NFPA 472)
Immiscible	In this guidebook, means that a material does not mix readily with water.
Mass explosion	Explosion which affects almost the entire load virtually instantaneously.
Miscible	In this guidebook, means that a material mixes readily with water.
Nerve agents	Substances that interfere with the central nervous system. Exposure is primarily through contact with the liquid (via skin and eyes) and secondarily through inhalation of the vapor. Tabun (GA), Sarin (GB), Soman (GD) and VX are nerve agents. **Symptoms:** Pinpoint pupils, extreme headache, severe tightness in the chest, dyspnea, runny nose, coughing, salivation, unresponsiveness, seizures.
Non-polar	See "Immiscible".
n.o.s.	These letters refer to not otherwise specified. The entries which use this description are generic names such as "Corrosive liquid, n.o.s." This means that the actual chemical name for that corrosive liquid is not listed in the regulations; therefore, a generic name must be used to describe it on shipping papers.
Noxious	In this guidebook, means that a material may be harmful or injurious to health or physical well-being.
Oxidizer	A chemical which supplies its own oxygen and which helps other combustible material burn more readily.

Glossary

P	The letter "P" following a guide number in the yellow-bordered and blue-bordered pages identifies a material which may polymerize violently under high temperature conditions or contamination with other products. This polymerization will produce heat and high pressure buildup in containers which may explode or rupture. (See polymerization below.)
pH	pH is a value that represents the acidity or alkalinity of a water solution. Pure water has a pH of 7. A pH value below 7 indicates an acid solution (a pH of 1 is extremely acidic). A pH above 7 indicates an alkaline solution (a pH of 14 is extremely alkaline). Acids and alkalies (bases) are commonly referred to as corrosive materials.
PIH	Poison Inhalation Hazard. Term used to describe gases and volatile liquids that are toxic when inhaled. (Same as TIH)
Polar	See "Miscible".
Polymerization	This term describes a chemical reaction which is generally associated with the production of plastic substances. Basically, the individual molecules of the chemical (liquid or gas) react with each other to produce what can be described as a long chain. These chains can be formed in many useful applications. A well known example is the styrofoam (polystyrene) coffee cup which is formed when liquid molecules of styrene react with each other or polymerize forming a solid, therefore changing the name from styrene to polystyrene (poly means many).
Protective clothing	Includes both respiratory and physical protection. One cannot assign a level of protection to clothing or respiratory devices separately. These levels were accepted and defined by response organizations such as U.S. Coast Guard, NIOSH, and U.S. EPA. Level A: SCBA plus totally encapsulating chemical resistant clothing (permeation resistant). Level B: SCBA plus hooded chemical resistant clothing (splash suit). Level C: Full or half-face respirator plus hooded chemical resistant clothing (splash suit). Level D: Coverall with no respiratory protection.
Pyrophoric	A material which ignites spontaneously upon exposure to air (or oxygen).
Radioactivity	The property of some substances to emit invisible and potentially harmful radiation.

Glossary

Radiation Authority	As referred to in Guides 161 through 166 for radioactive materials, the Radiation Authority is either a Federal, state/provincial agency or state/province designated official. The responsibilities of this authority include evaluating radiological hazard conditions during normal operations and during emergencies. If the identity and telephone number of the authority are not known by emergency responders, or included in the local response plan, the information can be obtained from the agencies listed on the inside back cover. They maintain a periodically updated list of radiation authorities.
Refrigerated liquid	See "Cryogenic liquid".
Straight (solid) stream	Method used to apply or distribute water from the end of a hose. The water is delivered under pressure for penetration. In an efficient straight (solid) stream, approximately 90% of the water passes through an imaginary circle 38 cm (15 inches) in diameter at the breaking point. Hose (solid or straight) streams are frequently used to cool tanks and other equipment exposed to flammable liquid fires, or for washing burning spills away from danger points. However, straight streams will cause a spill fire to spread if improperly used or when directed into open containers of flammable and combustible liquids.
TIH	Toxic Inhalation Hazard. Term used to describe gases and volatile liquids that are toxic when inhaled. (Same as PIH)
Vapor density	Weight of a volume of pure vapor or gas (with no air present) compared to the weight of an equal volume of dry air at the same temperature and pressure. A vapor density less than 1 (one) indicates that the vapor is lighter than air and will tend to rise. A vapor density greater than 1 (one) indicates that the vapor is heavier than air and may travel along the ground.
Vapor pressure	Pressure at which a liquid and its vapor are in equilibrium at a given temperature. Liquids with high vapor pressures evaporate rapidly.
Viscosity	Measure of a liquid's internal resistance to flow. This property is important because it indicates how fast a material will leak out through holes in containers or tanks.

Glossary

Warm zone	Area between Hot and Cold zones where personnel and equipment decontamination and hot zone support take place. It includes control points for the access corridor and thus assists in reducing the spread of contamination. Also referred to as the contamination reduction corridor (CRC), contamination reduction zone (CRZ), yellow zone or limited access zone in other documents. (EPA Standard Operating Safety Guidelines, OSHA 29 CFR 1910.120, NFPA 472)
Water-sensitive	Substances which may produce flammable and/or toxic decomposition products upon contact with water.
Water spray (fog)	Method or way to apply or distribute water. The water is finely divided to provide for high heat absorption. Water spray patterns can range from about 10 to 90 degrees. Water spray streams can be used to extinguish or control the burning of a fire or to provide exposure protection for personnel, equipment, buildings, etc. **(This method can be used to absorb vapors, knock-down vapors or disperse vapors. Direct a water spray (fog), rather than a straight (solid) stream, into the vapor cloud to accomplish any of the above).** Water spray is particularly effective on fires of flammable liquids and volatile solids having flash points above 37.8°C (100°F). Regardless of the above, water spray can be used successfully on flammable liquids with low flash points. The effectiveness depends particularly on the method of application. With proper nozzles, even gasoline spill fires of some types have been extinguished when coordinated hose lines were used to sweep the flames off the surface of the liquid. Furthermore, water spray carefully applied has frequently been used with success in extinguishing fires involving flammable liquids with high flash points (or any viscous liquids) by causing frothing to occur only on the surface, and this foaming action blankets and extinguishes the fire.

PUBLICATION DATA

The 2000 Emergency Response Guidebook (ERG2000) was prepared by the staff of Transport Canada, the U.S. Department of Transportation, and the Secretariat of Communications and Transport of Mexico with the assistance of many interested parties from government and industry.

ERG2000 is based on earlier Transport Canada, U.S. DOT, and Secretariat of Communications and Transport emergency response guidebooks. The Emergency Response Guidebook has been translated and printed in many languages, including French, Spanish, Chinese, German, Hebrew, Japanese, Portuguese, and Thai.

We encourage countries that wish to participate in future editions of the Guidebook to provide their emergency response center information for inclusion. Please contact any of the websites or telephone numbers in the paragraph below.

DISTRIBUTION OF THIS GUIDEBOOK

The primary objective is to place one copy of the ERG2000 in each emergency service vehicle through distribution to Federal, state, provincial and local public safety authorities. The distribution of this guidebook is being accomplished through the voluntary cooperation of a network of key agencies. Emergency service organizations that have not yet received copies of ERG2000 should contact the respective distribution center in their country, state or province. In the U.S., information about the distribution center for your location may be obtained from the Hazardous Material Safety web site at http://hazmat.dot.gov or call 202-366-4900. In Canada, contact CANUTEC at 613-992-4624 or via the web site at http://www.canutec.gc.ca for information. In Mexico, call SCT at 52-5-684-1275 or 684-0188.

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Constructive comments concerning ERG2000 are solicited; in particular, comments concerning its use in handling incidents involving dangerous goods. Comments should be addressed to:

In Canada:

Chief, CANUTEC
Transport Dangerous Goods
Transport Canada
Ottawa, Ontario
Canada K1A 0N5

Phone: 613-992-4624 (information)
FAX: 613-954-5101
Internet: canutec@tc.gc.ca

In the U.S.:

U. S. Department of Transportation
Research and Special Programs Administration
Office of Hazardous Materials Initiatives and Training (DHM-50)
Washington, DC 20590-0001

Phone: 202-366-4900
FAX: 202-366-7342
Internet: welisten@rspa.dot.gov

In Mexico:

Secretariat for Communications and Transport
Land Transport Directorate
Hazardous Materials and Wastes Directorate
Calz. de las Bombas No. 411-9 piso
Col. San Bartolo Coapa
Coyoacan 04800, D.F.
Mexico

Phone and FAX: 52-5-684-1275 and 684-0188

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EMERGENCY RESPONSE TELEPHONE NUMBERS

CANADA

1. CANUTEC

613-996-6666
(Collect calls are accepted)
*666 cellular (in Canada only)

UNITED STATES

1. CHEMTREC®

1-800-424-9300
(Toll-free in the U.S., Canada, and the U.S. Virgin Islands)
703-527-3887 For calls originating elsewhere
(Collect calls are accepted)

2. CHEM-TEL, INC.

1-800-255-3924
(Toll-free in the U.S., Canada, and the U.S. Virgin Islands)
813-248-0585 For calls originating elsewhere
(Collect calls are accepted)

3. INFOTRAC

1-800-535-5053
(Toll-free in the U.S., Canada, and the U.S. Virgin Islands)
352-323-3500 For calls originating elsewhere
(Collect calls are accepted)

4. 3E COMPANY

1-800-451-8346
(Toll-free in the U.S., Canada, and the U.S. Virgin Islands)
760-602-8703 For calls originating elsewhere
(Collect calls are accepted)

5. MILITARY SHIPMENTS

703-697-0218 - **Explosives/ammunition incidents**
(Collect calls are accepted)
1-800-851-8061 - **All other dangerous goods incidents**

EMERGENCY RESPONSE TELEPHONE NUMBERS

MEXICO

1. SETIQ

01-800-00-214-00 in the Mexican Republic
For calls originating in Mexico City and the Metropolitan Area
5559-1588
For calls originating elsewhere, call
0-11-52-5-559-1588

2. CECOM

01-800-00-413-00 in the Mexican Republic
For calls originating in Mexico City and the Metropolitan Area
5550-1496, 5550-1552. 5550-1485 or 5550-4885
For calls originating elsewhere, call
0-11-52-5-550-1496, or 0-11-52-5-550-1552
0-11-52-5-550-1485, or 0-11-52-5-550-4885

BRAZIL

1. PRÓ-QUÍMICA

0-800-118270
(Toll-free in Brazil)
55-11-232-1144 For calls originating elsewhere
(Collect calls are accepted)

For additional details see the section entitled "**WHO TO CALL FOR ASSISTANCE.**"

The Emergency Response Guidebook is normally revised and reissued every three or four years. However, in the event of a significant mistake, omission or change in the state of knowledge, special instructions to change the guidebook (in pen-and-ink, with paste-over stickers, or with a supplement) may be issued.
Users of this guidebook should check periodically (about every 6 months) to make sure their version is current. Changes should be annotated below. Contact:

DOT/RSPA
http://hazmat.dot.gov/gydebook.htm

TRANSPORT CANADA
http://www.tc.gc.ca/canutec/en/guide/guide-e.htm

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